

# MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

Vol. 9. No. 18.  
WEEKLY.

BALTIMORE, JUNE 12, 1886.

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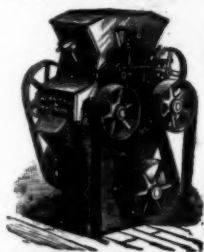
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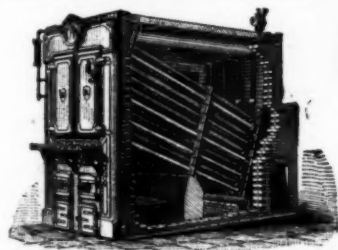
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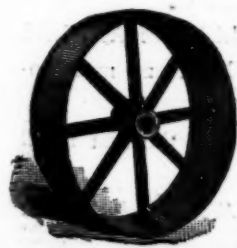
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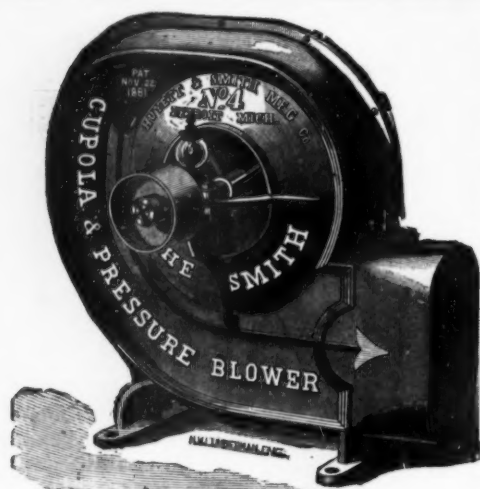
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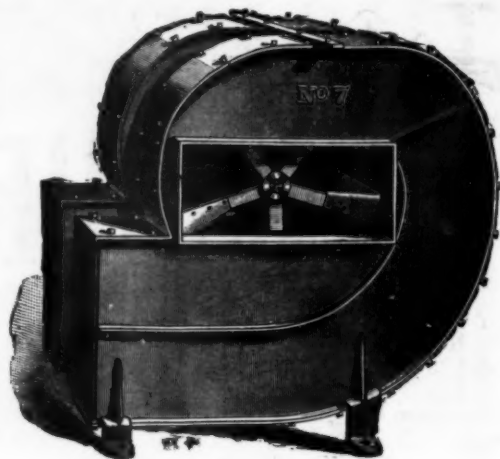


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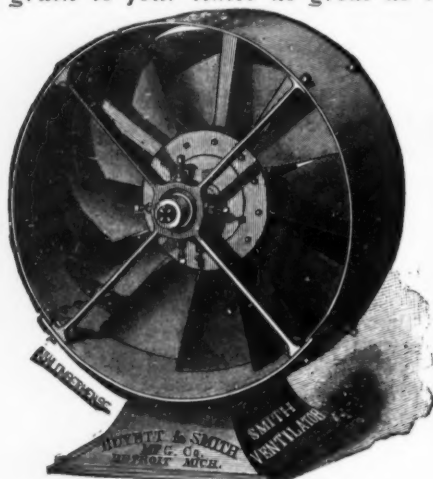


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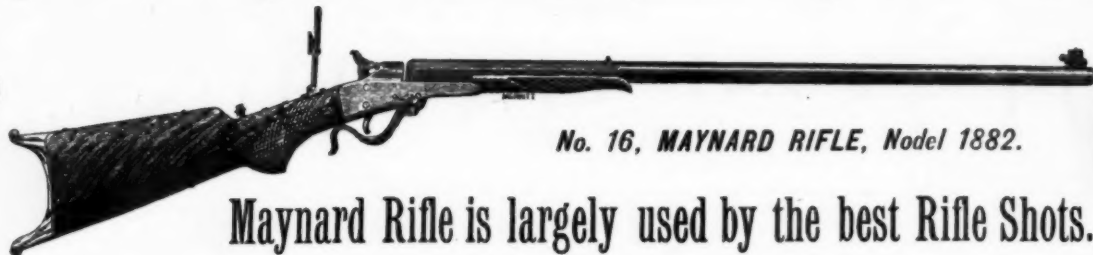
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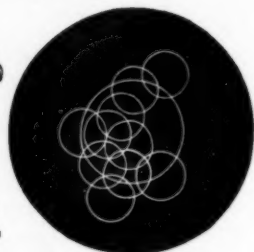
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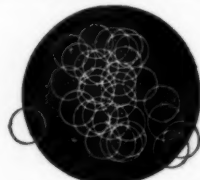
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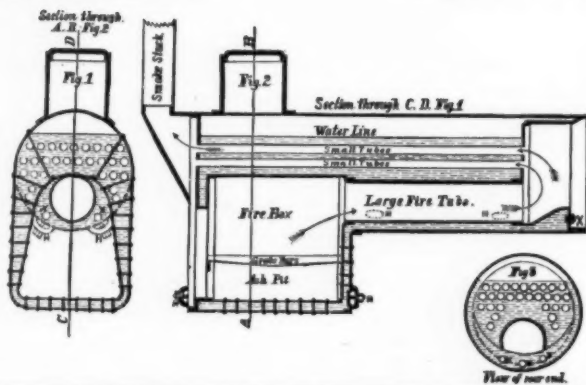
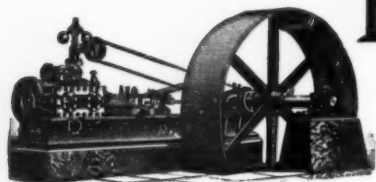
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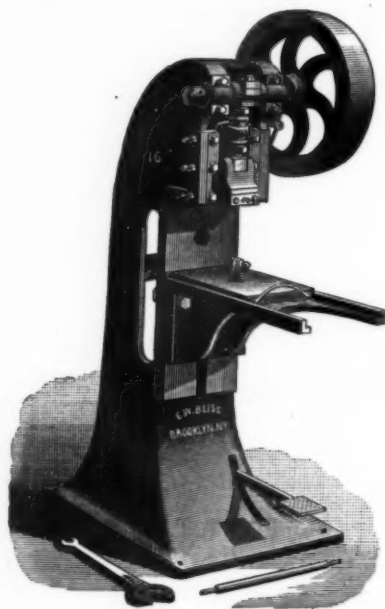
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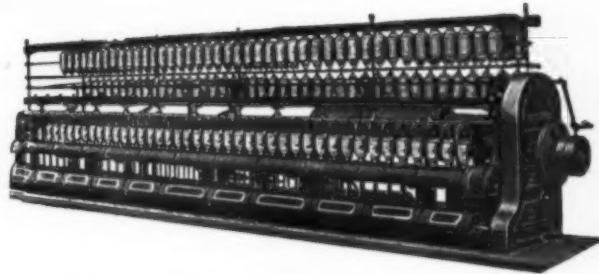
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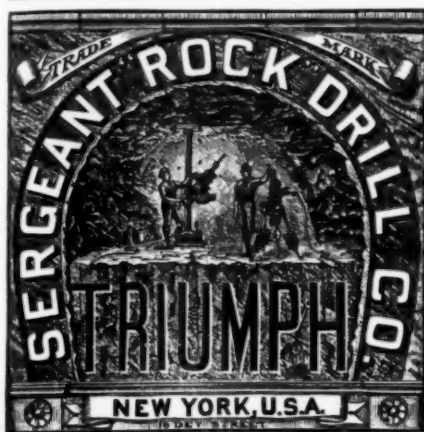
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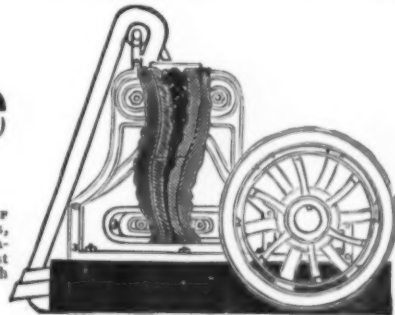
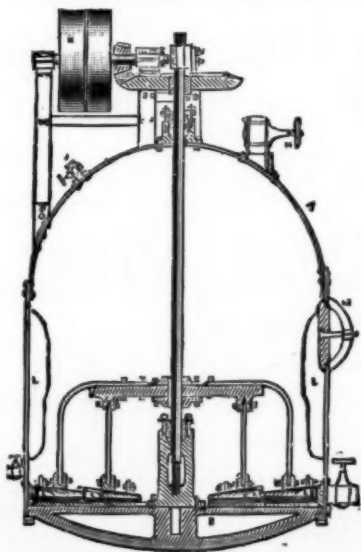
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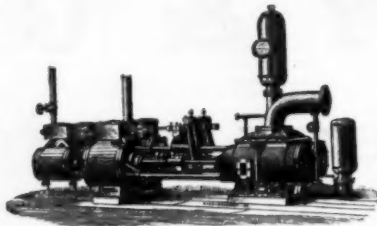
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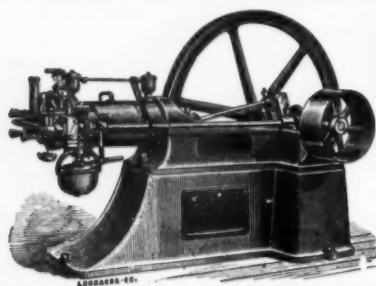
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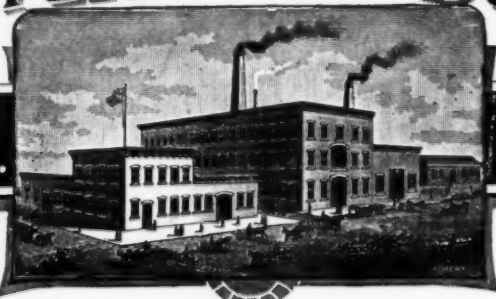
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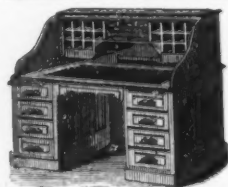
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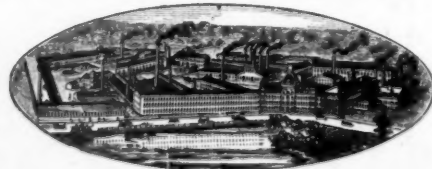
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## OUR BIRMINGHAM LETTER.

### The Thomas Furnaces—Prosperity of Birmingham.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., June 8, 1886.

During the twenty-odd years that my pen has been wagging at one thing or another, I can hardly remember any time when there was as great a dearth of news worth recording as I have seen for the past week or two. Heretofore there has been something of a notable if not a sensational nature to write about every week for a year, but it is hard scratching for topics now, sure enough. Quiet reigns in the iron market. Orders are again coming in from the North and West, but very conservatively; still, the trade in that direction shows symptoms of revival. Eastern orders are more active, and a much better feeling prevails. I have not heard of any large lots being placed, but there is a goodish business transacting. Quotations are without any special change: No. 1 foundry, \$15.00; No. 2 ditto, \$14.00; No. 2½ ditto, \$13.25@13 50; Grey Forge, \$12.50@12.75.

The Financier appears to regard the Thomas movement with some little surprise, since the erection of a furnace at Birmingham will involve direct competition with the product of the Pennsylvania plants owned by the same concern. But the Financier cannot avoid the conclusion that it means the certainty that iron can be produced in Alabama more cheaply than in Pennsylvania or any other place in the country. Our Northern and Eastern friends have been slow to reach a conclusion which, had they arrived at it earlier, might have been turned to valuable account. Sir Isaac Lothian Bell saw it years ago, and has recorded the fact in his history of the iron and steel industry; but Eastern trade papers and iron masters have laughed the idea to scorn until lately. Now they see that what we have been claiming all along is absolutely true, and they are not comfortable over the prospect.

The trouble with American manufacturers seems to be that they are not broad enough as to their views and ideas. They see new conditions rapidly surrounding their industry; new districts with exceptionally favorable opportunities beginning to compete with them, and all that sort of thing, and the only thing they do is to ignore the whole subject, except to give a friendly grin when their trade organ sagely assures them that there is really nothing in it, and that iron masters who are shipping train loads of pig iron to Baltimore, Philadelphia, Pittsburgh and New York will soon burst up! Northern industrial capitalists have been strangely remiss about a matter in regard to which they have had frequent and plain warning from some of the most unquestioned lights of the interest. On the contrary, they have hugged the delusion that this was only a small hamlet with modest resources, until most of them have lost the chance to buy into the Birmingham development at rock bottom figures, and now they all feel sore over it. Ignorance of what we have here was well illustrated last week! One of the most experienced men in the business came down here to do a little prospecting, and was greatly astonished to find that we had about a hundred miles of red ore accessible to furnaces, and coal and limestone within gunshot. He went home pretty well convinced that the best thing he could do would be to follow the example of Samuel Thomas, Esq., and join the procession. There is a regular pilgrimage of Eastern iron men to this point now under way, and the converts are neither few nor unimportant.

The general prosperity of Birmingham keeps pace with its manufacturing boom.

Speculation in city property is not as active as it was a few weeks ago, but there is a steady and progressive movement, and investments are being made every day. Of most of the current improvements I have already apprised you. There is one, however, that, on account of its seasonableness, is worthy of special mention! The Elyton Land Company is spending a great deal of money to make the delightful suburb of Lake View a pleasant summer resort. In addition to the improvement of the lake and its surroundings, a handsome casino has been provided, where summer cottagers can find everything desirable in the way of comfort. A number of dainty cottages are just about completed, and will be furnished and ready for occupants in two or three days. They are mostly built upon a finely wooded slope overlooking the lake, and across the dummy road from the casino, to which a bridge, now building, will conduct cottage residents directly from their grounds. Birmingham is so convenient to New Orleans and other far Southern points that there is no doubt its health resort will be well patronized—the more so now that some remarkably fine mineral springs have been recently opened on the ground. Work has commenced on the summer quarters of the Alabama Club, on a hill opposite Cottage Hill, and also overlooking the lake, casino, springs, natatorium, etc. Few towns of the age and population of Birmingham can boast such a resort.

Not fewer than 10,000 new mouths to feed will be brought to Birmingham this summer by the various railways building or extending, and the amount of money which will be put in local circulation thereby is not to be ignored. In this estimate I do not count the forces of workmen employed or to be employed upon the new hotel, the union station and other works. The plans of the Caldwell House, by the way, have been enlarged, so that the structure is to be six instead of five stories high, as originally intended.

G. B. WEST.

### Resources and Attractions of Moorehead City and Vicinity.

[Special correspondence MANUFACTURERS' RECORD.]

MOOREHEAD CITY, N. C., June 4, 1886.

When in 1852 the legislature of this State granted a charter to the Atlantic & Carolina Railroad, it also appropriated money enough to pay the cost of surveying the route. The company immediately organized and a survey was made. But a small proportion of stock had been subscribed by individuals; enough, however, to complete the organization and do the preliminary work. In 1854 the legislature took all the unsold stock at a cost of \$1,200,000—its par value; later, to meet a deficiency of capital, a loan was made from the State treasury, security being given in preferred bonds. Thus, to a large extent, this railroad is the creature and the property of the State. The majority of the directory consists of gentlemen appointed by the governor, the minority being elected by the stockholders. A management thus constituted, although made up of men of the best qualifications and intentions, must necessarily be handicapped to some extent, and a railroad thus governed cannot be expected to increase its business by liberal expenditures for advertising and other developing work. It is not surprising, therefore, that this railroad, which is but 95 miles long, should simply hold its own, without adding largely to its business, or to the development of the country traversed by it. Every act of its executive officers is closely watched, and whenever there is the shadow of a chance for criticism, it is poured out unsparingly, for there are no limits to political warfare, and the outs will always make the most of every chance they can get to worry the ins. Such is the case with this railroad, and there is no possibility that it will be otherwise until the State sells out its

interest, or the road is leased to competent parties. Such at least is the view taken by many of the stockholders and by a much larger number of good business men.

The foregoing is not intended to be a criticism of any past or of the present management. So far as I know, every board has, during its incumbency, made honest efforts to increase the road's traffic, and to manage its affairs with the care due to an important trust. The president and members of the present board are principally young men who have grown into business prominence within a few years. They have already infused new life into the old corporation. It was the first in the State to change to the standard gauge. It is economically conducted, and its cash receipts are steadily increasing. A disposition is apparent to protect and increase its local traffic, and something has already been done in that direction. The rolling stock is in excellent condition, and has received additions of several cars for fruits and truck. At one place, at least, on the line the company has cut a short road through the woods that puts an extensive, well selected and very fertile section within three miles of a station. Before this the people there had to drive a dozen miles to reach a depot. During the past month the management has been busy in preparing for summer travel. This city is naturally one of the finest summer resorts to be found on the Atlantic coast, and for a number of seasons it has had extensive hotel accommodations in readiness for the crowd. Moorehead stands upon a peninsula, with its broad side toward Bogue sound. The coast here extends east and west, from Point Lookout to Onslow sound. The banks of irregular sand dunes between the sounds and the ocean break the fury of any sea gales that may be blowing, and protect the mainland from their violence. But while no dangerous winds can come sweeping inland, summer calms are few and of short duration. The signal service observer stationed at Fort Macon has furnished the records of several summers. They show that in the months of June, July and August of the four years between 1882 and 1885, inclusive, there were but ten calms, and none of these exceeded half a day. The average summer temperature is lower than at some Northern watering places, while the mercury has not since the station was established gone above 91 degrees Fahrenheit, and in the last three years has only once registered that high. The Atlantic, the principal hotel, can comfortably accommodate 750 guests. It has on special occasions had more than that number to care for. It opens this year under the management of Cooke & Foster Bros. The senior partner was long connected with the Yarbrough at Raleigh, where he made host of friends. The attractions here are bathing in the brackish waters of Bogue sound, or in the ocean surf, boating, sailing, fishing, hunting and riding on the beach, which offers a smooth, broad, hard track thirty miles long, a splendid place for racing and pleasure drives. What with these amusements, and the social pleasures incident to such a place, the three summer months, beginning with June, that make the season here, fly swiftly away, and the guests return to their pursuits refreshed and strengthened by their play spell.

This year rooms have been secured in advance by people in every Southern and in several Northern States.

On the other side of the harbor is the city of Beaufort, now a place of 2,500 inhabitants, while this has but 700. The one was well known before the war as the seat of a thriving business; the other bore a great name, but had little to show for it except its railroad terminus. Business has greatly changed since 1865. Beaufort once dealt largely in naval stores; now fresh and salt fish, clams and oysters are the chief articles of traffic, both there and here. These two centers draw supplies from a long coast line. Every day cases of fresh fish packed in ice

are sent North and West by express. The shipment of quahaugs from Beaufort has become a considerable item, and when their excellence is generally known, the business, which is comparatively new, will run into extensive proportions. The catch at this season consists of Spanish mackerel, blue fish, spots, sheepshead, and other kinds of inferior value. These are mostly caught in seines, but in the course of a fortnight blue fishing will be excellent, and then there will be hundreds of amateurs among the trawlers.

Plums, peaches, nectarines and grapes flourish in these eastern counties, except where they are too exposed to the strong ocean winds. Plums and grapes are indigenous and abundant. Peaches and nectarines must be cultivated. When they have been well cared for, they produce large crops of fine fruit. Both could be made profitable products of this section, and increase considerably the volume of railroad freights. But the greatest single source of increase in its outgoing freight the railroad will get from the cultivation of oysters in these waters. In time this will become the leading industry of the sound counties. Lieutenant Winslow, who is in charge of the oyster survey, says the present area of oyster beds in the waters of this State is 5,000 acres, and the annual product is from 175,000 to 200,000 bushels. He estimates that in Bogue and Cove sounds there are not less than 75,000 acres that can be gardened successfully. These oyster grounds extend east and west from this harbor, which would naturally handle most of their output, which, with all these grounds well cultivated, would be 3,000,000 bushels annually. This State can eventually furnish 25,000,000 bushels of oysters annually, says Lieutenant Winslow. It will be a long time before all this vast area beneath the waters is put under cultivation, but in a small tentative way much has already been accomplished, and the general interest in the subject in all these coast counties indicates the anxiety of the people to push ahead this development as fast as possible.

B. S. P.

### The Thomas Iron Company in Alabama.

BIRMINGHAM, ALA., May 31, 1886.

Editor *Manufacturers' Record*:

In the month of October, 1868, David Thomas, the father of Mr. Samuel Thomas the present president of the Pioneer Mining & Manufacturing Co., and the father of the anthracite business in Pennsylvania, accompanied by his son, Judge Packer, Mr. Fritz and other capitalists of Pennsylvania, came to this country on a prospecting tour, having heard something of our mineral deposits; and, as I lived at that time at the point known as Grace's Gap of the Red Mountain—the great deposit of red hematite—I went with them to the top of the mountain, about 400 feet above the level of Jones' Valley. When Mr. David Thomas approached the thirty feet bluff of iron ore I heard him exclaim in astonishment that he had seen most of the iron deposits of England, Scotland and Wales, as well as those of the United States, but he had never witnessed anything to equal that. During the same visit he bought a fine tract of brown hematite, 30 miles southwest of this place in Roupes Valley, and, at the first session of our legislature thereafter, procured an act to be passed chartering the present company. The company, when first chartered, consisted of about seven persons, including the three Thomas's, Joshua Hunt, Robt. H. Sayre and some others. While here on this first visit they bought a small tract of the Red Mountain, and afterwards from time to time have continued to purchase through me, as their agent, iron and coal lands until their purchases amounted to nearly 20,000 acres. A few days ago they had a meeting here and reorganized their company, the original directory and stockholders having been reduced, by death and otherwise, to three per-



sons. In the formation of the new company the mineral lands of the old company were rated at \$400,000 (not more than half their value); other parties, all Northern men, subscribed \$600,000 in cash, making a capital of \$1,000,000 as a beginning. I understand that it is their purpose to erect two blast furnaces at the start of the capacity of 100 tons per day each, and finally to make everything that can be made of iron, including steel. It was their intention to commence work several years ago, but the death

The Rudisil is rapidly being unwatered, and, in fact, the greater part of the mine is now free from water. Ore extraction has already been commenced from the lower levels, but the exact depth is not stated. The ore is a heavy, fine-grained sulphuret. Vigorous work is also being done on the "Bush Hill" end of the vein, the exact results of which have not yet been made public.

All the concentrating machinery and tools have lately been shipped from the Designolle

ing, on last Monday, of a handful of emeralds. They were found at a depth of 42 feet from the surface. The work goes on! More than \$15,000 has been expended in mining for gems at that place, and it has all been paid back to the company by the sale of gems, and more, they have a very decided credit on the income side of the books, which proves that gem mining is a profitable business.

MISCELLANEOUS.

—In South Carolina there are no startling

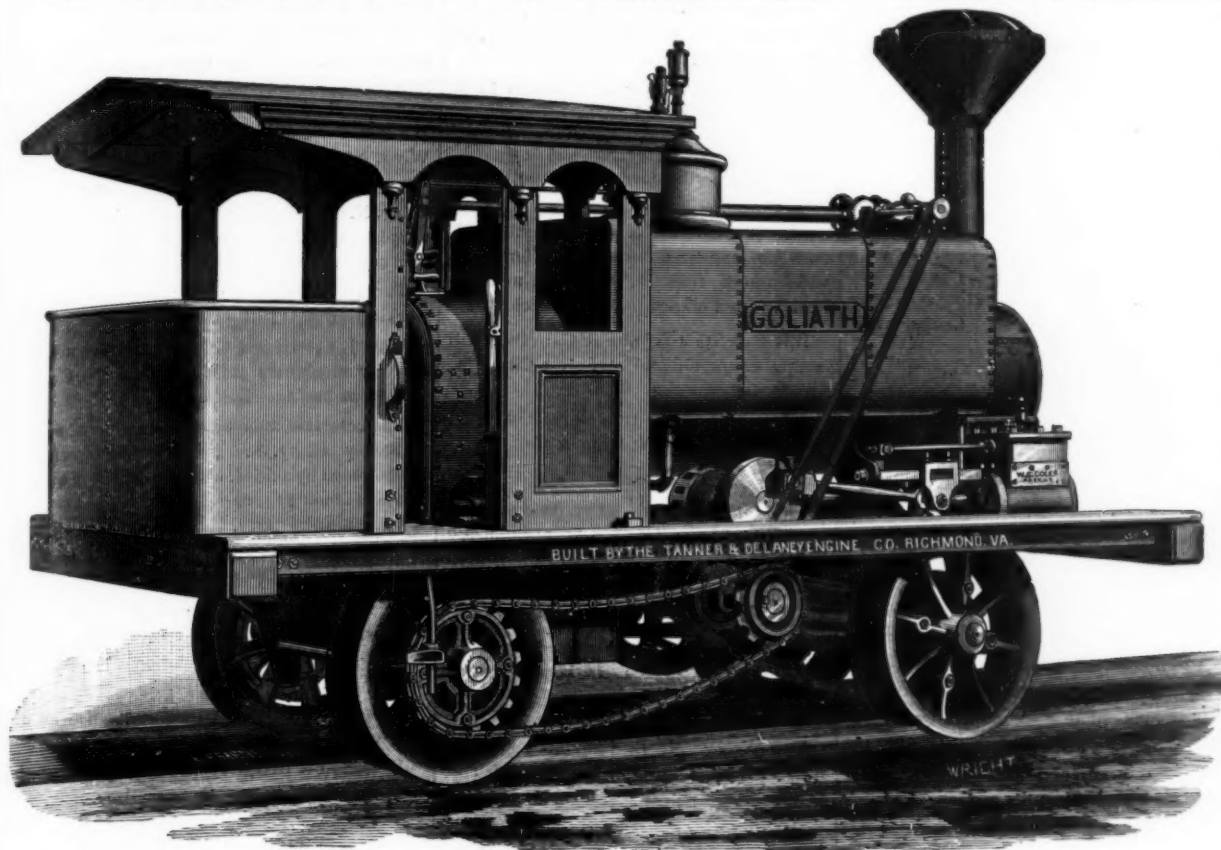
## Locomotives for Pole Railways.

A pole railway, as its name implies, is a road constructed of poles. These roads have been in use in different parts of the country for over twenty years, being principally used for logging purposes. They have been constructed in almost every conceivable manner possible, but until lately they have not grown into much favor or aroused the attention they merit. Cars have been constructed for running on these roads, and have generally been drawn by oxen. This mode of locomotion was at once both slow and expensive. The cars used were of the most crude design and did not add much to the success of the pole road.

The Tanner & Delaney Engine Co. are manufacturing a locomotive that will give to pole roads a practical value they have not heretofore possessed.

The accompanying cut of the locomotive will give a very good idea of its general design and appearance. The boiler is made of the best selected homogeneous steel plates, and is thoroughly tested to carry a high pressure. The frame work is of wrought iron and steel, and is very substantial and heavy. The driving wheels are 30 inches diameter on the tread and are massive and strong. The wheels are each driven separately by a chain having a breaking strain of over 12 tons. Motive power is transmitted from the crank shaft of the engine to the master shaft, on which the driving sprocket or chain-wheels are keyed, through a spur and pinion of large pitch and face, properly proportioned to resist all strains. The engine shaft, master shaft and axles are all of the best steel. The axles are mounted on a double spiral spring, and are so arranged in the axle-box bearings that they can be adjusted for any stretching in the chain. A first-class governor controls the speed of the engine, which is about 5 miles per hour. A water tank is mounted over the boiler having a capacity of 500 gallons. The wearing parts of the valve motion and the reversing gear are of steel and case hardened. An inspirator or injector of approved design is used for feeding the boiler.

There is one peculiarity in the construction of this locomotive deserving attention. The driving wheels move independently of each other, both rotary and laterally, and are each separately driven from the master shaft, so that each wheel being separately and positively driven, it will perform its function of draft without regard to the work of the other wheels, so that from any cause should a chain become detached or broken, locomotion will be unimpeded. The whole



POLE ROAD LOCOMOTIVE.

of Mr. David Thomas and other discouraging matters have hitherto prevented it.

B. E. GRACE, SR.

## MINING NOTES.

By T. K. BRUNER, Salisbury, N. C.

### GUILFORD COUNTY.

In Guilford county there is but little being done in mining. The Lindsay and the Deep River properties are both idle, though both are good properties. At Fisher Hill, Superintendent Nichols is busy putting in two Frazer & Chalmers' concentrators.

There is a new property being opened near Pleasant Garden, in that county, with good prospects of being a successful mine. There is also another new property being opened some 15 miles from Greensboro, on the line of the North Carolina division of the Richmond & Danville Railroad. The ore is a brown ferruginous quartz and is of very fair grade. The extent of the lode has not yet been ascertained, though from surface indications it bids fair to be amply large to justify a medium-sized plant of machinery.

### MECKLENBURG COUNTY.

At the Point Mine a new shaft house is going up and the ground is being cleared preparatory to the erection of a mill house, though it is not known that a contract has been let for that purpose.

At the Todd Mine they are drifting on the cross vein lately discovered, and the vein is reported 2½ feet wide. This is encouraging.

There is no change worthy of mention at the St. Catherine. The mine is still producing a uniform grade of ore, which is shipped to the chlorination works at Salisbury.

Works, near the city of Charlotte, which indicates the final abandonment of that plant. It was erected several years ago, and was expected to revolutionize mining and supplant other modes of treatment in the Southern districts, but for some reason it has so far failed in its mission, and this last movement looks like a final farewell.

The Henderson Mine is down about 70 feet, and they are finding troublesome ground to sink through.

### UNION COUNTY.

The Hendly Mine, in Union county, near the Mecklenburg line, is actively prospected,

changes. At the Brown Mine a small prospecting mill has been put up, while the ordinary placer work continues with usual regularity.

—At the Haile there is no noteworthy change. The production continues with marked uniformity.

—The same may be said of the Georgia gold fields. No changes of marked interest have been reported.

—There is more than usual inquiry about mines in all the three States alluded to, and several parties are looking up the matter, but it is very hard to know when they "mean



CAR FOR POLE ROAD.

A very considerable dump of ore has accumulated, and some of it has been milled. The results obtained were large enough to stimulate greater work. The ore is valued at \$30 per ton, which, of course, is much too high. The ore is free milling, which would make \$10 to the ton good enough, and much nearer the mark.

### A HANDFUL OF EMERALDS.

Professor Hidden, who has just begun work at the famous emerald and Hiddenite mine in Alexandria county, reports the find-

business." But the very fact that they are engaged in searching through the Southern fields for investment in this class of property is indication that the field is attracting a more than passing interest.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

of the machinery is mounted on the frame in what may be termed a "flexible manner," thus suiting it to travel over the roughest kind of roads without injury to the machinery.

These locomotives have cylinders 7 inches diameter by 12 inches stroke, and it is said will haul six cars containing 10,000 feet of boards up a grade of 200 feet to the mile, at a speed of 5 miles per hour.

The Tanner & Delaney Engine Co. also manufacture cars for pole railways.

# CONSTRUCTION DEPARTMENT.

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

## Industrial Progress of the South for Two Weeks.

The growth of the industrial interests of the South is really surprising. Week after week shows a list of new enterprises covering almost every line of manufacturing and mining that gives some indication of the great industrial development now in progress throughout the Southern States. This growth is not confined to any one State, though of course more noticeable in some than in others, but extends through the whole South. As illustrating this industrial development, the following summary of new enterprises reported in our Construction Department for the last two weeks only will prove of general interest: In Alabama, Mr. Samuel Thomas and his associates are preparing to build a large furnace, \$600,000 in cash having been put up against \$400,000 in mineral property, making the capital of the company \$1,000,000, although the land is said to be well worth \$800,000; at Sheffield, in the same State, the contract has been awarded for a 100-ton furnace; \$40,000 has been raised to build a cotton compress at Anniston; \$40,000 are being spent to enlarge gas and electric light works at Birmingham; work on a new foundry and machine shop has been commenced at the same city, a site has been purchased for a bolt and nut factory, and a jug factory has been started, while several saw, planing and grist mills are reported. In Arkansas, Pine Bluff is to have \$100,000 railroad machine shops; Little Rock has organized a \$100,000 woolen and cotton manufacturing company; mining machinery is being erected near Hot Springs; a saw mill and furniture factory combined will go up at Arkansas City; a large saw and planing mill at Arkadelphia; a stave factory at Harrisburg, and other wood-working enterprises in other parts of the State. Florida shows up with a \$500,000 company to do a general contracting and wood-working business, a \$30,000 electric light company, brick yard, saw mills, etc. In Georgia there have been a \$100,000 granite quarrying company, a \$150,000 marble company, a manganese mining enterprise, foundry and machine shop, large planing mill, basket factory and an ice manufacturing company. Maryland has a new \$1,000,000 sheet metal company, a slate quarry, grist and flour mill, &c. In Mississippi a \$50,000 spoke manufacturing company has been organized, an ice factory, cheese factory, several creameries, new machinery for a cotton mill and brick works. North Carolina has a new furniture factory, a \$40,000 gas and electric light company, stave and shuttle block factory, and a number of saw mills, while in gold mining operations there is considerable activity. In Tennessee, two iron furnaces are to be erected, a \$60,000 woolen mill is to be built at once, a foundry is going up, several flour mills, saw mills, and other small enterprises are to be started. Texas reports a \$50,000 ice and electric light company, a wagon and carriage factory, a \$30,000 water company, an ice factory, a

\$60,000 compress company, and three or four large flour mills. Virginia has two \$100,000 coal mining companies, an iron foundry, a machine and boiler company and a large flour mill under contract. In West Virginia 20,000 acres of timber land have been purchased for development, a \$100,000 steel and iron company and a natural gas and oil company organized. As this summary covers only the reports of two weeks and omits quite a number of smaller enterprises, our readers can readily see that the South is vigorously forging ahead in the industrial line.

### ALABAMA.

The capital stock of the Huntsville Street Railway Co., Huntsville, Ala., reported last week as incorporated, is \$100,000. The corporators are Lawrence Cooper and William B. Leedy.

B. B. McKenzie, Dunham, Ala., has received the contract to build 30 miles of the Montgomery & Florida Railway Co.'s road, reported last week.

Rolley Jenkins is moving his saw mill from Dearmonville to Seddon, Ala.

J. P. Witherow, of Pittsburgh, Pa., has received the contract to build the 100-ton iron furnace for the Sheffield Furnace Co., Sheffield, Ala., previously reported. It is said that work will be begun at once.

A mill will be erected on the Mobile & Montgomery Railroad, near Wilson, Ala.

It is rumored that locomotive works are to be built at or near Birmingham, Ala.

Thompson, Francis & Chenoweth will build a large warehouse, 50x120 feet, at Birmingham, Ala.

A brick yard has been started at Uniontown, Ala.

There are prospects of a large bottling establishment being started at Anniston, Ala.

A saw mill will probably be erected near Hotspur, Ala., by Mr. Knight, of Childersburg.

The report referred to last week, that the money has been subscribed to build a cotton compress at Anniston, Ala., is correct. A company will be organized with a capital stock of \$40,000. Mr. Samuel Noble can give particulars.

The mill previously reported as to be erected at Opelika, Ala., by Floyd & Stevens will be a planing mill and sash and door factory.

### ARKANSAS.

Mr. McMillen has rebuilt his lumber mill at Little Rock, Ark., and put in new machinery.

The name of the syndicate previously reported as formed to erect a furniture factory and saw mill at Arkansas City, Ark., is Desha Lumber & Planting Co. The machinery for the saw mill has been purchased and will soon be erected near Arkansas City.

John O'Day and James Dunn, of Springfield, Mo.; A Douglas and F. P. Wherry, of St. Louis, Mo.; D. H. Woods, of Bentonville, Ark., and J. W. Frey, E. P. Watson, S. M. Ramsdell and John Smart have incorporated in Arkansas the Bentonville & Western Railroad Co., capital stock \$1,000,000, to build a road from Rogers to Bloomfield.

The Arkadelphia Lumber Co., Arkadelphia, Ark., have purchased the machinery for their new saw and planing mills, previously reported.

E. W. Parker, P. C. Ewing and G. W. Shinn have incorporated at Little Rock, Ark., the Quapaw Mill Co., capital stock \$100,000, to manufacture cotton and woolen fabrics.

Mr. Edgar, Corning, Ark., has put some new machinery in his mill.

The general manager of the Texas & St. Louis Railway Co., reported as intending to build \$100,000 machine shops at Pine Bluff, Ark., is S. W. Fordyce, St. Louis, Mo.

A 40-ton smelter is to be erected at the mines near Hot Springs, Ark., by a party from Wisconsin.

Fred. Rossner will erect a \$20,000 brick building at Little Rock, Ark.

### FLORIDA.

Mr. Marks will move his saw mill from Candler to Montague, Fla.

The St. Augustine & Pablo Beach Railroad Co. has been formed in Florida, to build a road from St. Augustine to Pablo Beach, with a branch to North Beach.

It is stated that Schultz & Carrollton will erect a castor oil mill at Forest City, Fla., by next fall.

A \$50,000 building is to be erected at St. Augustine, Fla., by W. Lyon & Co.

### GEORGIA.

The Magruder gold mine, twelve miles from Washington, Ga., has been purchased by W. N. Mercier, of Augusta.

W. C. Norris will erect a \$5,000 planing mill at Hampton, Ga., for E. G. Harris.

A new church will be erected at Rome, Ga., by the Episcopalians. It will cost at least \$15,000.

### KENTUCKY.

The Wesley M. E. Church, Louisville, Ky., will erect a new building to cost \$11,000.

Mike Buckley has received the contract to erect a school building at Frankfort, Ky., at \$22,260.

Stuart & Neal have started a brick yard at Winchester, Ky.

### LOUISIANA.

A saw mill has recently been erected at Columbia, La., by Humphries & Murphy.

Gebert & Russell, New Iberia, La., contemplate erecting a branch shingle factory in New Orleans, La.

Hernandez & Saloy have completed the erection of a pottery factory at New Orleans, La.

### MARYLAND.

William Whitridge, Douglass H. Thomas, Basil B. Gordon, Thomas M. Smith and Edward Small have incorporated at Baltimore the Metal Seaming Co., capital stock \$1,000,000, to manufacture metallic vessels, packages, &c.

Jacob Menchey is opening a slate quarry near Melrose, Md.

E. O. Grimes and William B. Thomas will erect a three-story hotel, 40x80 feet, at Westminster, Md.

Mr. Smith is erecting a grist and flour mill near Castleton, Md.

A bill has been introduced in the House of Representatives, Washington, D. C., to incorporate the Washington Cable Railway Co.

\$15,000 has been subscribed by the Furniture Workers' Union, Baltimore, towards starting a furniture factory.

### MISSISSIPPI.

The Macon Creamery Co., Macon, Miss., will add a cheese factory and an ice factory to their creamery.

W. E. Beck & Co. will double the capacity of their soda water factory at Vicksburg, Miss., previously reported.

The proposition of George P. Anderton, Birmingham, Ala., to build water works at Meridian, Miss., to cost about \$75,000, has been accepted, subject to certain conditions.

The machinery will soon be put in the Port Gibson Cotton Mill, Port Gibson, Miss., erected three years ago.

### NORTH CAROLINA.

George H. Hall and A. B. Pearsall will rebuild their saw mill near Hoffman, N. C., reported in this issue as burned.

The Durham, Blue Wing & Clarksville Railroad Co., previously reported as incorporated in North Carolina, has been organized with B. W. L. Holton as president and William Raker, vice-president; office, Blue Wing, N. C.

The Big American Reduction Co., of Blue Wing, N. C., engaged in copper mining, contemplate spending \$35,000 for the erection of a 40-ton smelting and refining plant.

Thomas Woodroffe will erect a wood-working factory at Greensboro, N. C.

John J. Fowler and Gilbert H. Green are erecting machinery at Wilmington, N. C., for a stave and shuttle-block factory.

The corn and flour mill of Mr. Foreman, in Stanly county, N. C., reported last week as destroyed by a flood, will be rebuilt. The loss was about \$3,500.

The Boilston Mining Co., previously reported, are negotiating for reduction machinery, which they will erect at their mine in Henderson county, N. C.

It is stated that the Big Swamp Co. contemplate erecting several lumber mills at Fair Bluff, N. C.

It is said that an electric light plant is to be erected at Greensboro, N. C.

Buchanan & Berryman will build a tobacco warehouse, 90x150 feet, at Jonesboro, N. C.

Jenkins & Williams have rebuilt their distillery at Lumberton, N. C., reported last week as burned.

R. O. Patterson, Asheville, N. C., will improve his flour mill by adding considerable new machinery.

The Asheville Street Railway Co. will be organized at Asheville, N. C.

W. F. Wade & Bro. will rebuild their turpentine distillery at Wadeville, N. C., reported last week as burned.

### SOUTH CAROLINA.

John S. Latham, Easley, S. C., is erecting a flour mill near Pickens.

### TENNESSEE.

A planing mill is being erected at Pleasant View, Tenn.

The Weber Brewing Co. are purchasing new machinery to double the capacity of their ice factory at Chattanooga, Tenn.

Stewart & Alford have received the contract to erect a \$5,200 school building at Columbia, Tenn.

The stock company reported last week as being formed at Athens, Tenn., to erect a woolen mill, has been organized as the Athens Woolen Mills, with W. M. Nixon as president; A. C. Robeson, superintendent, and R. J. Fisher, secretary and treasurer. Work on a mill building, one story, about 60x430 feet, will soon be commenced.

J. E. Gardner, Mossy Creek, Tenn., will erect a saw mill near Friend's Station, and add a flouring mill in the near future.

M. B. Neeley, Rockbridge, Ky., has made a proposition to Pulaski, Tenn., to erect a large flouring mill at that place.

## LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.,

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.



It is stated that J. W. Wells has doubled the capacity of his brick yard at Chattanooga, Tenn.

The flour mill of the Nashville Mill Co., Nashville, Tenn., will be remodeled and the daily capacity increased to 600 barrels.

It is stated that a company is being formed by A. S. Colyar, William Morrow, Mr. Marks and James C. Warner, of Nashville, Tenn., John H. Inman, of New York, and others, to erect two iron furnaces at or near South Pittsburg.

Mr. Tarwater has opened a new iron ore mine near Rockwood, Tenn.

The McKenzie Planing Mill Co., McKenzie, Tenn., has completed their planing mill.

The Casetty Oil Co., of Nashville, Tenn., will enlarge their works and put in new machinery.

The Concord Marble Co., B. Tripp, Jr., secretary, of Concord, Tenn., previously reported as organized, are putting in additional marble sawing machinery.

#### TEXAS.

A \$15,000 church will be built at Sherman, Texas, by the Methodists.

The San Antonio & Aransas Pass Railway Co. have increased their capital stock to \$5,000,000, and will issue \$10,000,000 of bonds to extend their road and build several branches.

Falls county, Texas, will build a \$45,000 court-house at Marlin.

The Cisco Water & Artesian Well Co., capital stock \$30,000, has been incorporated at Cisco, Texas, by T. B. Wheeler, L. E. Brammir, G. R. Blake, John T. Creech, Hugh Carrington and others.

The machinery of the Dallas Cracker Factory, Dallas, Texas, has been purchased by the Carter-Wright Cracker Co., of Fort Worth, and will be added to their factory.

The Alvarado Roller Mill & Elevator Co., capital stock \$20,000, has been incorporated at Alvarado, Texas, by G. W. Cotton, J. M. Hill, M. Lansour, G. B. Paxson, A. M. Morgan and others.

J. E. Jackson is erecting a roller flour mill at Ladonia, Texas.

The Sulphur Springs and Mount Pleasant Railroad Co., capital stock \$500,000, has been incorporated in Texas.

A. F. Bentley, L. R. Wade, M. M. Williams, F. F. Downs and others have chartered at Temple, Texas, the Temple Compress Co., capital stock \$60,000.

It is reported that F. Priest, of Decatur, Ill., will start a rope and twine factory and build a street railroad at Jefferson, Texas.

#### VIRGINIA.

Charles Hammond will rebuild his mattress factory at Claremont, Va., reported last week as burned.

The Knights of Labor Machine & Boiler Co. has been incorporated at Portsmouth, Va., with C. R. Warren as president; John A. McDonald, vice-president; William A. Jobson, secretary, and John C. Kaufman, treasurer. The capital stock is not to exceed \$100,000.

It is reported that the Old Dominion Iron & Nail Works Co., Richmond, Va., will erect a Bessemer plant.

A company is being organized at Roanoke, Va., by P. Dorsey Sutton and others, to manufacture stone.

The Upper Appomattox Co., Petersburg Va., have let the contract for a new roller flour mill.

#### WEST VIRGINIA.

Mr. McQuacklin and others have purchased 20,000 acres of land in West Virginia and will build a pocket boom to cost \$12,000, at the mouth of the Coal river, at St. Albans.

The Standard Iron Co. has been incorporated at Wheeling, W. Va., to manufacture iron and steel and to mine coal, by Alonzo

Loring, Lewis Delaplain, Daniel C. List, Jr., John T. Jones and Samuel P. Hildreth. The capital stock is not to exceed \$100,000.

N. B. Scott, T. H. Logan, Morris Horkheimer, Joseph Speidel and W. E. Hughes have incorporated at Wheeling, W. Va., the Central Oil Co., to bore for oil and natural gas. The capital stock is not to exceed \$500,000.

#### BURNED.

The saw mill of George H. Hall and A. B. Pearsall near Hoffman, N. C.; loss \$2,000. Will be rebuilt.

The corn mill of S. P. Young & Co., Dallas, Texas; loss \$20,000.

W. A. Thompson's carriage factory at Fort Worth, Texas; loss \$6,000.

The shingle mill of G. Wallace in Upshur county, Texas.

Tobe Timmons' saw mill near Columbia, Tenn., badly damaged by explosion.

Mr. Wither's foundry at Atlanta, Ga.; loss \$2,800.

A. Cohn's gin at Newellton, La.

The pottery of Charles Podesky, New Orleans, La.; loss \$7,000.

The saw and planing mill of Smith, Mitchell & Co., Catlettsburg, Ky.; loss \$45,000.

The gin of W. W. Johnson, Redbane, Miss.; loss \$2,000.

#### Electric Light Wanted.

BRENNHAM, TEXAS, June 2, 1886.

*Editor Manufacturers' Record:*

It is my intention to put electric lights in my oil mill here, and as soon as I receive enough bids for the work, will have it done.

S. HEIDENHEIMER.

#### Building Foundry and Machine Shop.

BIRMINGHAM, ALA., June 4, 1886.

*Editor Manufacturers' Record:*

We were chartered May 17, and will do a general foundry and machine shop business, including brass castings, and will manufacture Jones' Patent Car Wheels and Axles. Our shop will be 35x75 feet. The foundations were commenced this day at Avondale, a suburb of this city. H. HOUP, Treas.

EXCELSIOR FOUNDRY & MACHINE SHOP.

#### A \$40,000 Cotton Compress.

ANNISTON, ALA., June 3, 1886.

*Editor Manufacturers' Record:*

The capital stock has been subscribed, some \$40,000, to put up a new 80-inch Morse press. I think the work will be commenced so as to have it ready for the fall crop. The company will be regularly organized as soon as agreements can be made with the roads centering here.

SAM'L NOBLE.

#### Cotton Mills to Resume.

BALTIMORE, June 7, 1886.

*Editor Manufacturers' Record:*

The Laurel Company will start up their mills recently purchased at Laurel, Prince Georges county, Md., about the middle of this month. D. H. CARROLL, President.

RUSSELLVILLE, ARK., June 5, 1886.

*Editor Manufacturers' Record:*

Water works are to be constructed at this place costing \$2,000. They will be erected at once by the town council.

W. J. SHERRELL.

VERONA, MISS., June 2, 1886.

*Editor Manufacturers' Record:*

We are erecting a creamery here by a stock company composed of many citizens, with Col. R. C. Clark, president.

C. W. TAYLOR.

#### To Build Planing Mill.

OPELIKA, ALA., June 5, 1886.

*Editor Manufacturers' Record:*

We are going to build a planing mill for manufacturing sash, doors, blinds, etc., and also a gin to be run in connection with it. Our buildings will be of brick, one 45x70 feet, 2 story, and one 30x45 feet, one story.

FLOYD & STEVENS.

#### Cotton & Hay Presses.

TALLADEGA, ALA., June 3, 1886.

*Editor Manufacturers' Record:*

We will soon start to manufacture hay presses and also cotton presses at this point.

J. T. ADAMS & SON, Proprietors

Talladega Machinery & Carriage Depot.

#### Wood-Working Factory.

GREENSBORO, N. C., June 4, 1886.

*Editor Manufacturers' Record:*

I propose erecting shops and running wood-working machinery for general contractors' and builders' work, and to deal in lumber and builders' supplies. Have leased over 4 acres of land on R. & D. Railroad for switching facilities. THOMAS WOODROFFE.

#### Will Rebuild Mill.

MEMPHIS, TENN., June 7, 1886.

*Editor Manufacturers' Record:*

We are going to build the mill again and we are at it now. This is too live a country to lay down in. They won't let a fellow have a chance to go to sleep even when he is tired. We had no idea that people in your country knew that our mill was burned. As I say, this is too good a country to lie still in; we have not time to lie still; it costs too much, and "push along, keep moving" is the watchword.

HOTCHKISS & STRONG.

#### Mining Iron Ore.

GRAHAM'S FORGE, VA., June 4, 1886.

*Editor Manufacturers' Record:*

The Crozer Steel & Iron Co., of Roanoke, Va., have purchased the Rich Hill ore banks in Pulaski county, and are now preparing to develop the property. They have a number of hands at work, and, by August 1, expect to be ready to put out 125 tons of ore, which will be shipped to their furnace in Roanoke.

J. W. ROBINSON.

#### Creamery Machinery Wanted.

HAGERSTOWN, MD., June 7, 1886.

*Editor Manufacturers' Record:*

Will you kindly send me the address of some manufacturers of creamery machinery, such as separators, churns, butter workers, &c.; also the name and author of some standard work on creameries, if you know of any such of recent date.

H. C. GETZENDANNER.

#### Canning Machinery Wanted.

MOBILE, ALA., June 1, 1886.

*Editor Manufacturers' Record:*

Can you put us in communication with some one who manufactures or deals in machinery for canning and drying fruits and vegetables, such as tomatoes, corn, peas, strawberries, blackberries, etc. We would be very glad to get all the information on this subject possible, and shall feel grateful to you if you can put us on the right track.

R. M. SANDS & CO.

#### Will Enlarge Works.

NASHVILLE, TENN., May 31, 1886.

*Editor Manufacturers' Record:*

We will manufacture oils and grease from local products, together with petroleum, &c. We will enlarge our present facilities by additional machinery to meet the general demand in our line. CASSETTY OIL CO.

#### \$100,000 Machine Shops.

PINE BLUFF, ARK., May 31, 1886.

*Editor Manufacturers' Record:*

The Texas & St. Louis Railway Co. have determined to build its principal repair and car shops at this place. They have the ground, one hundred and ten acres, paid for, and the company have set aside one hundred thousand dollars to put in the shops. They have contracted for the making of five million brick, and the bricks are now being made here. It is also their intention to erect fine offices in connection with a hotel on their depot grown in the heart of our little city.

W. P. GRACE

#### A \$50,000 Marble Company.

CONCORD, TENN., June 1, 1886.

*Editor Manufacturers' Record:*

We are a new corporation and have bought the mill from the Juniata Quarry & Marble Co. at this place. We are putting in two more gangs of saws, making four in all, and are engaged in sawing marble in slabs and dimension stone for the trade. We buy marble in blocks from the various quarries in this neighborhood. Our capital stock is \$50,000. B. TRIPP, JR., Sec'y.

#### Enlarging Terminal Facilities.

CHARLESTON, S. C., June 3, 1886.

*Editor Manufacturers' Record:*

The New York & Charleston Warehouse & Steam Navigation Co. intend extending their wharf facilities on water front some 200 feet or more, and will also put up warehouse and wharf sheds—the latter not fully determined. C. N. AVERILL, Supt.

#### New Planing Mill.

MCKENZIE, TENN., May 30, 1886.

*Editor Manufacturers' Record:*

The McKenzie Planing Mill Co., with a good capital, has opened up with new machinery and bids fair to do a fine trade.

CANNON & JACKSON.

#### Building a Sugar Refinery.

FRANKLIN, LA., June 4, 1886.

*Editor Manufacturers' Record:*

The Glencoe Refinery is being moved to this place, where a much larger Central Refinery is being erected, using that machinery in part.

L. M. FERNI.

#### An Extensive Enterprise.

BRIERFIELD, ALA., June 7, 1886.

*Editor Manufacturers' Record:*

The Briarfield Coal & Iron Co. have invested at this place \$750,000. They have a nail factory, coal mines and furnace. The company bought the property in 1882, and have been building and improving, and will soon do an extensive business. Capacity of factory 350 to 400 kegs nails.

P. M.

#### Enlarging Capacity.

HIGH POINT, N. C., June 7, 1886.

*Editor Manufacturers' Record:*

I am adding machinery for finishing spokes and increasing my facilities for business here. I will, however, probably start a small mill at Staley for cutting shuttle blocks, but it will not interfere with my business here, and this place will remain headquarters.

Our new bank which opened here June 1 is starting off nicely.

SNOW & COX.

#### \$40,000 Improvements.

BIRMINGHAM, ALA., June 2, 1886.

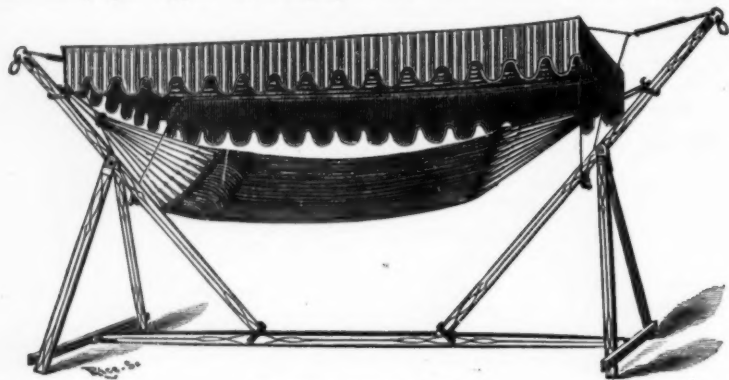
*Editor Manufacturers' Record:*

We have commenced to make improvements and extensions to the amount of \$40,000 on our electric light works.

J. H. MCWILLIAMS, Sec'y.

**The Gem Hammock Support.**

There have been many attempts to supply a light, strong, compact, portable support for hammocks for use where there is not room and proper support for swinging a



THE GEM HAMMOCK SUPPORT.

hammock. The patent folding hammock and swing support so well represented by the accompanying cut will commend itself at a glance. It has stood the test of time and extended service, and though it has had imitators it remains at the head and is given the preference over all others. Some are too clumsy and cumbersome; others rest on timbers so large as to seriously damage the lawn. The "Gem," as is shown by the cut, rests solely on small corner posts and its tracks will scarcely be perceptible

**Automatic Gauge Lathe.**

This machine is one of the recent productions of the Egan Company, of Cincinnati, Ohio, who have embodied in it a number of new useful features. The following de-

scription of it is from the catalogue recently issued by this company:

The head spindle is made of the best cast steel, of large diameter, running in patent

is brought gradually down and follows immediately after the roughing cutter.

For ordinary turning, such as chair legs and rounds, bungs, broom handles, fork, hoe or rake handles, the lathe is furnished without back knife or inclined frame.

**Crozing and Chamfering Machine.**

The accompanying cut represents an improved machine for chamfering, howeling and crozing kegs and other small casks up to barrels. It finishes both ends of the keg or cask at the same time. It is said to do the work perfectly and rapidly, and will finish ready for the heads.

The machine is built by Mr. Geo. J. Fritz, proprietor Central Iron Works, St. Louis, Mo., who will furnish any particulars desired.

THE editor of the Huntsville, Ala., Mercury is reported by the Baltimore MANUFACTURERS' RECORD as saying a few wise words to the effect that the capitalists of the South are too deeply engrossed in politics to give the proper amount of attention to business

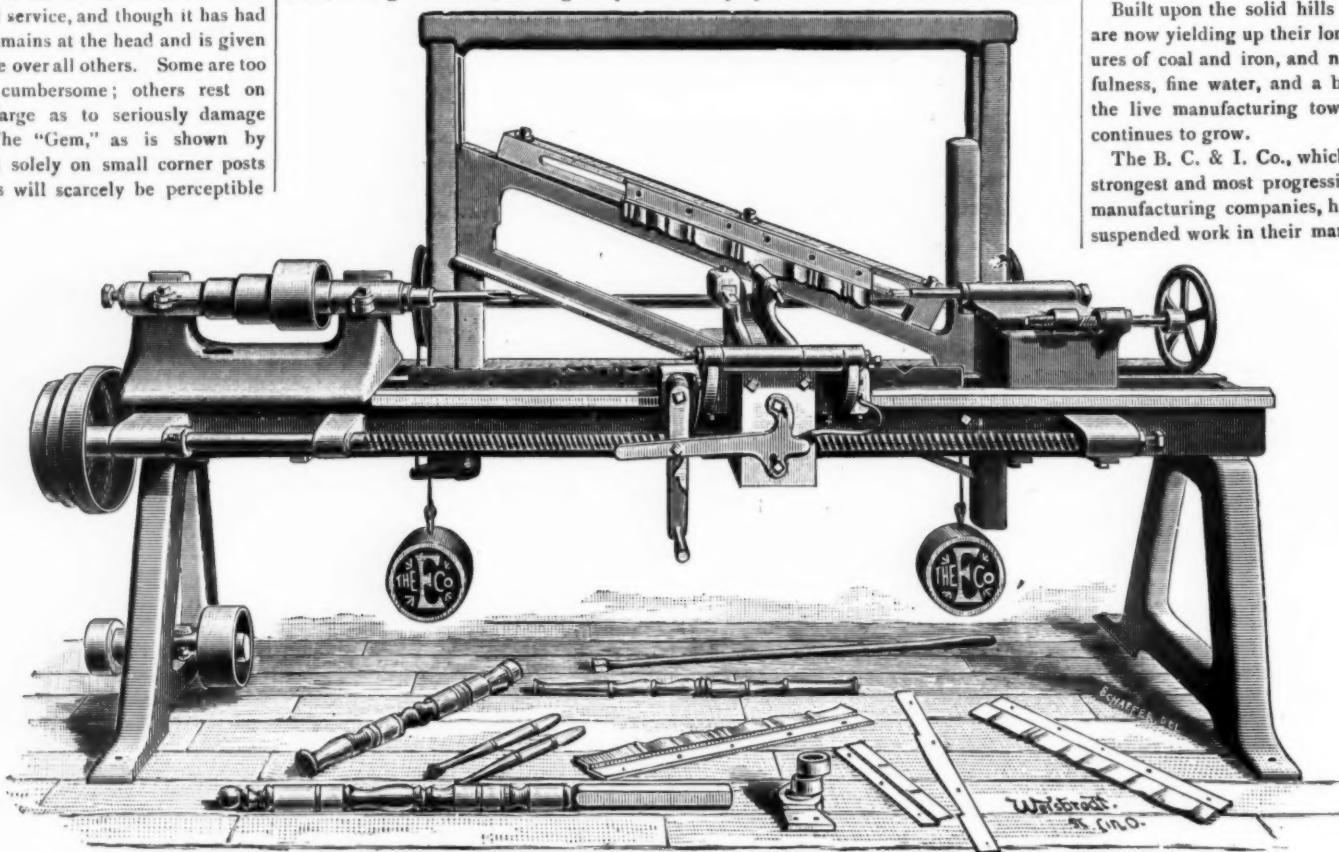
running waste for want of timely cultivation and the wheels of the old mills rotting in idleness. These men enter into a political discussion with all the fire and patriotism of a Junius Brutus, lose time, waste breath and forfeit their reputation for industry, and then go home and quarrel with their wives if a good meal don't happen to be prepared for them. Politics may be drink for some men, but it is certainly poison of the rankiest type for others. Let our Southern idlers seek honest employment and quit the store boxes on the corner, and our land will reach a more flourishing condition.—Frederick News.

THE Baltimore MANUFACTURERS' RECORD is doing a great work for the South in giving publicity to all matters connected with her industrial progress. The MANUFACTURERS' RECORD has able correspondents and newsgatherers in the Southern States, and the facts they bring to light are surprising and most agreeable to our people. The South is certainly making rapid strides in the march to wealth and prosperity, and her internal improvements are steadily and wonderfully increasing.—McCormick (S. C.) Advance.

**Activity at Brierfield, Ala.**

Built upon the solid hills of Bibb, which are now yielding up their long buried treasures of coal and iron, and noted for healthfulness, fine water, and a bracing climate, the live manufacturing town of Brierfield continues to grow.

The B. C. & I. Co., which is one of the strongest and most progressive of our large manufacturing companies, have temporarily suspended work in their mammoth nail fac-



AUTOMATIC GAUGE LATHE, WITH BACK SLIDING KNIFE.

after remaining out for a season. It is an article combining beauty, luxury and comfort. It is made very light and strong, and is an ornament to either lawn or piazza.

It can be easily set up or taken down at a moment's notice. It is not necessary to take down the support at night or on occasion of a sudden storm. It is a mere matter of lifting off the hammock and awning, which roll up into small, compact form, easily handled. The whole outfit occupies space only 4x11 feet. The awnings are gotten up very tastefully, made of fancy striped canvas, with spring attachments for adjusting to any angle, as well as to keep proper tension.

The whole is a thing of beauty and of solid comfort. Whether one has good facilities for swinging it in the shade or not the awning will suggest itself at once as an agreeable protection from effects of light, heat or dropping insects. The fact that the whole arrangement can be moved from place to place gives it a further advantage over a hammock swung on trees or between posts. If the reader wants proof that this is not an expensive luxury, he may address Mr. H. O. Stratton, 159 Franklin street, Boston, Mass.

self-oiling boxes, which are furnished with an adjustable back screw for the spindle to run against. The cone pulley has two speeds of large diameter, giving ample belt power to same.

The tail-stock center revolves in a patent adjustable bearing, and is so arranged that when the center is brought up to the work by the hand wheel and screw, it revolves free, and all wear can be instantly taken up.

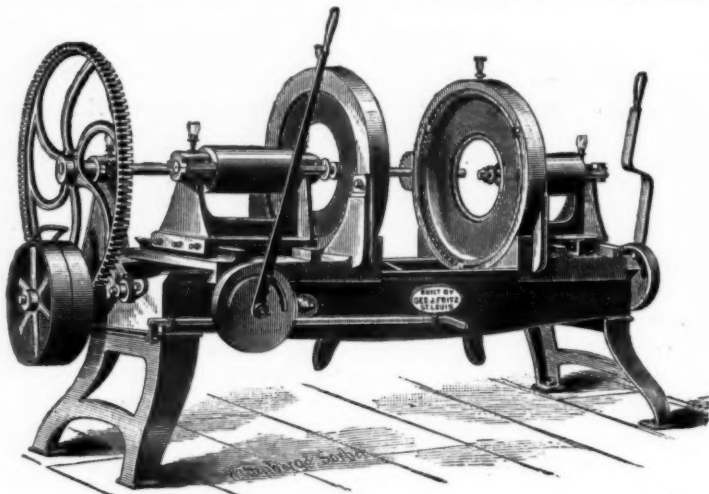
The bed is very heavy and is planed perfectly true, thereby allowing the carriage to travel free on planed ways.

The sliding rest or carriage is drawn by a large screw and is perfectly automatic, allowing the rest to be set for any length of stock to be turned. There are two cutters to the sliding rest and one sizing ring, viz: one cutter to size the stock so as to fit ring, and one to rough out the stock, the latter being controlled by a pattern fastened underneath, and which is an exact profile of the finished articles.

The back-knife frame slides in planed ways, and the finishing cut is made by an inclined vertical knife which works on the back of the piece to be turned, and is connected with the sliding rest in such a manner that as the rest moves forward the knife

and enterprise. This is not merely a local case. It is so all over the South, and has become the chief disease in the way of ad-

tory and rolling mills, for the purpose of making some much needed improvements, and of doubling their capacity after the first



CROZING AND CHAMFERING MACHINE.

vancement. There are some men in this part of the country who will sit on a store box all day long whittling a pine stick and talking politics, while home the fields are

of July or August. They are now erecting and have nearly completed one of the finest blast furnaces in the State, which will turn out for the present a sufficient quantity of the

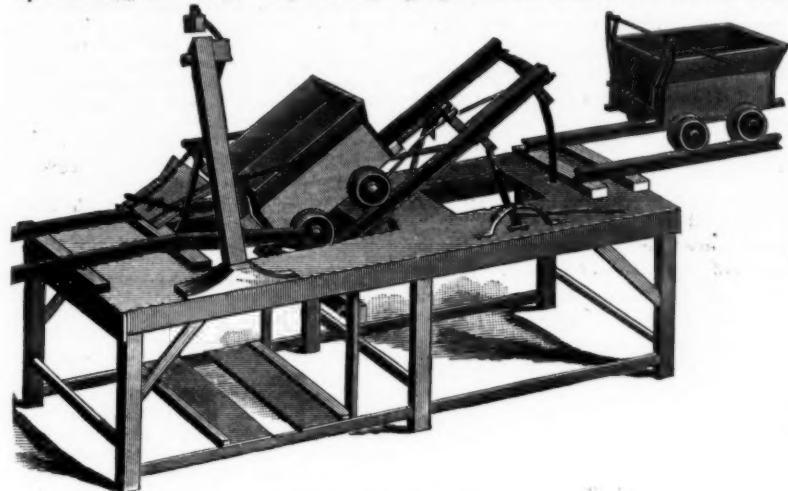


very best iron for their own use. They mine their coal, will hereafter make their own iron, and convert it into nails of the best quality which are shipped in kegs, made of lumber sawed at home.

In addition to this they make all their castings, and are now turning out under the supervision of Mr. George Farquhar, supt.

the company for their public works are built of brick or covered with sheet iron, and when all are completed will present a handsome appearance.

Several improvements have been made at the coal mines. The new railroad has been completed to the furnace, as a standard gauge, and will be extended to the ore beds



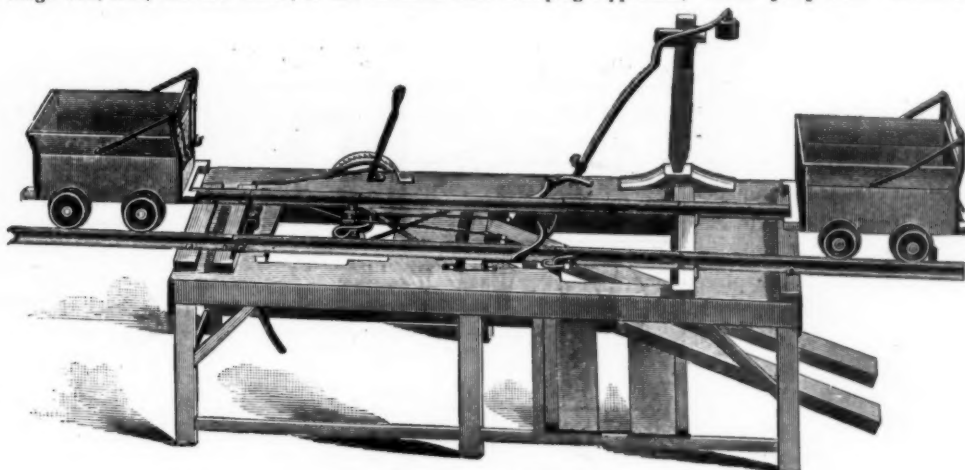
MITCHELL'S COAL TIPPLE.

of the foundry, some of the heaviest and finest specimens of castings for their blast furnaces ever made south of Pittsburgh, and which can not be surpassed even in that famous iron center. Mr. Farquhar has already turned out and is now making some pieces that weigh two, four, and five tons.

beyond. Everything denotes thrift, enterprise and future prosperity.—Calera Sentinel.

### Coal Dumping Apparatus.

The cuts on this page give a general idea of the Mitchell Coal Dumping Apparatus,



MITCHELL'S COAL TIPPLE.

The foundry is well equipped in every respect; an immense crane that can easily raise ten tons, with hoisting machines of the same capacity, and two large ladles that will hold respectively eight and twelve thousand pounds of melted ore, and capable of turning out a ten ton job at any time. This foundry is the only place south of Pittsburgh that can produce a chilled roll, which can be done here equally as well as at Pittsburgh.

Capt. Roper, superintendent of the rolling mill, is having the foundation laid for a new 150-horse power Hoff, Fontaine & Abbott engine, which will make 100 revolutions per minute. The cylinder is 20x36. The fly wheel consists of eight segments, each weighing three tons, making the weight of the wheel alone 24 tons, or 48,000 pounds. The brick work already done is one of the neatest jobs that could be imagined, and the engine will be placed upon a solid foundation. It will be used to run one side of the mill—the old engine, which is a very large and fine one, will be continued in the same position it now occupies. The puddling mills are being entirely overhauled, and everything will soon be put in ship shape, so that a double force can be employed all the time. The huge shears for clipping bars of rail are now in position and at work. The company has about completed five neat residences, and a great number of cabins, and it is very evident to a casual observer that the Brierfield of the past will soon be lost in the rapid growth and development of the near future. All the buildings used by

manufactured by the Lechner Manufacturing Co., Columbus, Ohio.

The following advantages are claimed for it by the manufacturers:

1. By the use of this tip on chutes, tip house or hoppers, the cars are passed straight forward across the dump, thus saving time

4. The use of the lever gives full control of the tip, so that the dumping can be fast or slow, as the occasion requires.

5. It knocks its own latches and holds the car door out of the way while the coal is passing out of the car.

6. It tips on rockers instead of an axle, the advantage being that it moves the fulcrum forward as the car tips, thus making it automatic, and as the brake is released the tip drops back in readiness.

The manufacturers have a large number of letters from those who are using this tipple, setting forth its merits.

### Remarkable Improvements Along the Cape Fear & Yadkin Valley R. R.

The officers of the Cape Fear & Yadkin Valley Railway, of North Carolina, have done a most excellent thing to make known the progress of the country along their line. Through Mr. J. A. McLauchlin they have compiled a record of recent improvements at their stations, which is remarkably suggestive of the rapid development of that country. Mr. McLauchlin has prepared a statement showing the number of new buildings erected at each station and whether used for manufacturing, mercantile or other purposes. Even to those who

the whole South the example of this road. The improvements at the various stations along this road are given as follows:

At Pleasant Garden—1 new cotton factory, 1 store, 5 dwellings, 1 saw mill. Total, 8 new buildings.

At Julian—2 cotton factories, 2 stores, 2 dwellings. Total, 6 new buildings.

At Liberty—20 dwellings, 3 churches, 1 saw mill, 3 stores, 2 blacksmith shops, 1 wheelwright shop, 2 academies. Total, 32 new buildings.

At Staley—1 saw mill, 4 dwellings, 1 church, 2 stores, 2 warehouses. Total, 10 new buildings.

At Siler—7 merchant mills, 8 cotton gins, 10 stores, 10 dwellings, 1 hotel, 7 saw mills, 1 manufactory of agricultural implements, 1 manufactory of tobacco flues, 1 tobacco warehouse, 4 warehouses. Total, 50 new buildings.

At Ore Hill—1 merchant mill, 3 saw mills, 12 dwellings, 1 church, 3 cotton gins, 1 blacksmith shop, 2 stores, 2 hotels, 3 warehouses, 1 academy. Total, 29 new buildings.

At Richmond—1 merchant mill, 1 church, 4 saw mills, 5 stores, 3 dwellings. Total, 14 new buildings.

Gulf—2 churches, 1 merchant mill, 2 cotton gins, 1 blacksmith shop, 1 wheelwright shop, 1 school-house. Total, 8 new buildings.

At Sanford—1 store, 2 cotton gins, 3 dwellings, 1 manufactory of sash, doors and blinds, 1 manufactory of agricultural implements, 1 foundry, 1 saw mill, 1 grist mill, 1 blacksmith shop, 1 academy. Total, 13 new buildings.

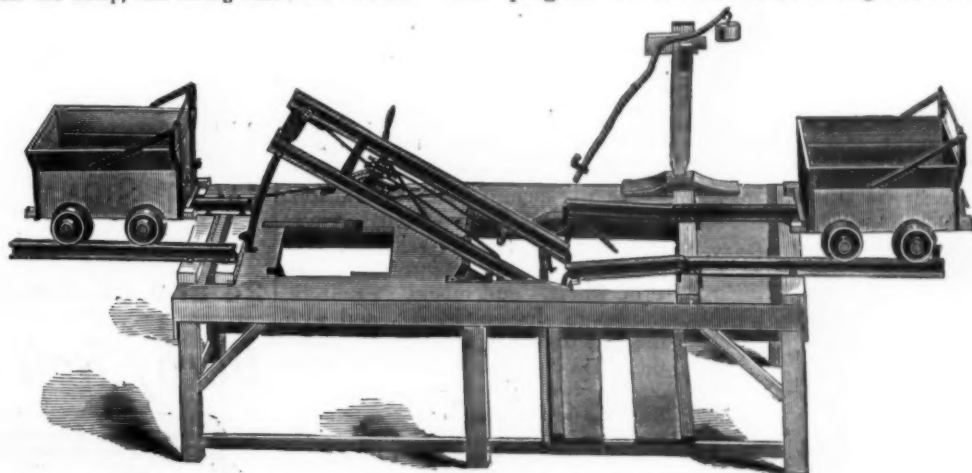
At Jonesboro—24 dwellings, 8 stores, 2 churches, 1 hotel, 2 blacksmith shops, 2 livery and sale stables, 4 firms gone into business, 2 tobacco warehouses, 3 tobacco prize houses, 1 foundry, 1 planing mill, 1 undertaker's establishment. Total, 51 new buildings and enterprises.

At Swann's—1 saw mill, 3 stores, 2 turpentine distilleries, 3 cotton gins, 1 blacksmith shop, 1 church. Total, 11 new buildings.

At Spout Springs—2 dwellings, 1 saw mill, 2 warehouses. Total, 5 new buildings.

At Manchester—3 turpentine distilleries, 1 saw mill, 3 stores, 2 dwellings, 2 churches. Total, 11 new buildings.

At Fayetteville—1 cotton seed oil mill, 1 manufactory of furniture, sash, blinds and doors, 2 foundries, 1 large power brick machine, 1 manufactory of edge and turpentine tools, 1 ice factory, 1 machine and repair shop, 2 manufactories of spirit barrels, 1 manufactory of tinware, 4 blacksmith shops, 7 cotton gins, 3 turpentine distilleries, 1 mattress factory, 1 candy factory, 1 factory for furniture, moulding, etc., 1 sausage factory,



MITCHELL'S COAL TIPPLE.

and labor consumed in pushing the cars backward and forward out of the way.

2. The empty car is removed by pushing the loaded car on the tip the usual way, the empty passing straight forward, as shown in the cuts.

3. The tip is controlled by a lever instead of a pole.

country along the Cape Fear & Yadkin Valley Railway, as presented in this statement, is only an illustration of what is being accomplished in nearly all parts of the South, and other Southern roads might follow with great profit to themselves and to

1 livery and sales stable, 1 churches, 2 schools, 14 new brick stores, 107 new dwellings, 1 weekly newspaper, 1 daily newspaper, 1 job printing office, 1 truck farm. Total, 160 new buildings and enterprises.

At Hope Mills—1 saw mill, 2 grist mills, 2 cotton gins, 1 store, 1 school, 7 dwellings. Total, 14 new buildings.

At McNatt's—2 turpentine distilleries, 1 cotton gin, 2 stores, 1 blacksmith shop, 2 cooper shops. Total, 14 new buildings.

At Lumber Bridge—1 saw mill, 1 cotton gin, 1 dwelling, 3 turpentine distilleries, 4 stores, 1 cooper shop, 1 blacksmith shop. Total, 12 new buildings.

At Shandon—1 cotton gin, 5 turpentine distilleries, 1 saw mill, 4 stores, 2 warehouses, 7 dwellings. Total, 20 new buildings.

At Red Springs—3 saw mills, 4 cotton gins, 4 turpentine distilleries, 1 hotel, 1 church, 2 schools, 7 cooper shops, 2 warehouses, 2 planing mills, 2 wood shops, 9 dwellings, 8 stores. Total, 45 new buildings.

At Wakulla—1 cotton gin, 2 turpentine distilleries, 2 cooper shops. Total, 5 new buildings.

At Floral College—1 grist mill, 1 cotton gin, 1 store. Total, 3 new buildings.

At Shoe Heel—2 turpentine distilleries, 2 churches, 2 hotels, 1 blacksmith shop, 1 academy, 1 dwelling. Total, 9 new buildings.

At John's—1 new store.

At Hasty—2 saw mills, 9 dwellings, 2 planing mills, 1 turpentine distillery, 3 stores, 1 cooper shop, 1 blacksmith shop, 1 warehouse. Total, 20 new buildings.

At McColl's—1 school, 1 turpentine distillery, 4 stores, 2 warehouses, 6 dwellings, 1 blacksmith shop, 2 cooper shops, 1 hotel. Total, 18 new buildings.

At Tatum's—2 stores, 3 dwellings, 1 wheelwright shop, 1 blacksmith shop, 1 school, 2 warehouses. Total, 10 new buildings.

At Bennettsville—4 saw mills, 13 cotton gins, 2 blacksmith shops, 1 church, 1 courthouse, 5 new brick stores, 4 warehouses, 15 dwellings, 2 furniture, sash, blind and door factories, 1 tinware factory. Total, 48 new buildings.

### The American Cotton Oil Trust Company.

SHERMAN, TEXAS, June 6, 1886.

*Editor Manufacturers' Record:*

In your issue of June 5th is an article copied from the Fort Worth Gazette, in which that astute journal claims to have found a "mare's nest" in the fact that the Knights of Labor are to combine with the negroes, and at a certain critical stage of the cotton crop stop cultivating it, thereby causing the crop to fail and the price of cotton to advance to "twelve or fifteen cents a pound."

When will that "molder" of public opinion print something of interest to the Texas public? Why does it not say something about the absorption of all the cotton seed oil mills in the South by the American Cotton Oil Trust? This scheme comes the nearest to being a death stab to the cotton growing industry of anything that has occurred since cotton raising began; yet neither the Gazette nor any of its contemporaries has said a word against it. Why this silence?

The reasons for the above declarations will be set forth in a future article.

C. H. MERRY.

BEFORE another decade the South will be more strongly protection than New England, and the next election of Congressmen in the South will teach the first impressive lesson to the Southern fossils who have been leading the Southern people on the traditions of the dead past. The growing and rapidly diversifying industries of the South will be heard in the future elections, and free trade will as surely be condemned in the cotton belt as it is in the Virginias and Pennsylvania.—Philadelphia Times.

THE Taylor Cotton Compress Company, Augusta, Ga., are setting three tubular boilers with the Jarvis Patent Boiler Setting.

### Building a Furniture Factory.

RALEIGH, N. C., June 7, 1886.

*Editor Manufacturers' Record:*

We are building a new furniture factory, corner of Jones and Saunders street, having removed from No. 120 S. West street. The machinery department is 50x80 feet, one story and a basement. The furnishings are 26x64 feet, two stories high. Z. L. ROLES.

### Will Rebuild.

CLAREMONT, VA., June 4, 1886.

*Editor Manufacturers' Record:*

I intend to rebuild my mattress factory as soon as possible. CHARLES HAMMOND.

BIRMINGHAM, ALA., June 3, 1886.

*Editor Manufacturers' Record:*

I have erected a shop to do all kinds of stone work and artificial stone bases, &c.

F. LOUIS.

ABERDEEN, MISS., June 2, 1886.

*Editor Manufacturers' Record:*

There is a creamery being constructed here which will soon be in operation. It is being erected by a stock company.

M. T. GILLESPIE.

### Will Rebuild.

WADEVILLE, N. C., June 5, 1886.

*Editor Manufacturers' Record:*

We will rebuild our distillery and will be in operation again in about 2 weeks.

W. T. WADE & BRO.

THERE is probably no other city in the South doing so large a manufacturing business in proportion to population as Anniston. In fact, Anniston has given so much attention to manufacturing that her mercantile trade has not reached that position which the the natural advantages of the place justify. While her merchants do a large business, they have failed to push their trade with the same vim that has characterized her manufacturers. An important step towards the development of her mercantile business was taken last year, when a very enterprising house, backed by an abundance of capital, was established to do a general wholesale trade, make advances on cotton, &c. Another move of even greater importance, and probably resulting from the establishment of this house, is the organization of a cotton compress company, with a subscribed capital of \$40,000, to build a first-class compress. If this compress is completed in time for the new crop, as its organizers hope, it will at once add very largely to every branch of trade in Anniston. It will attract large cotton receipts, and where the farmers sell their cotton they buy their farm supplies—agricultural implements, fertilizers, provisions, dry goods, &c., and with this increased mercantile business there will come an increase of population, more activity in real estate, and this will be followed by the establishment of other manufacturing enterprises. Anniston has needed a larger cotton trade and a wider diversity of industries of all kinds,—manufacturing and mercantile alike,—and it is to be hoped that the new compress company will push forward the building of their press so vigorously that it will be ready in full time for the new crop. Anniston will then show increased activity and prosperity in all her trade relations.

### The Business World.

The improvement in the business outlook at the beginning of each week since the moral collapse of the labor agitations has been moderate, but positive and well-founded. After the extended epoch of dullness in speculative and legitimate operations that has marked the past two years, widespread recuperation must, of necessity, be slow and oftentimes imperceptible if it is to be lasting and natural. Abnormal and unheard of shrinkage in values following general overproduction and under-consumption quickly clogged the regular channels of trade. The subsequent and consequent disintegration of confidence in the stability of our commercial and financial systems has proven itself the most formidable development of this national disease. The very nature of the business malady from which all the diversified interests of the country have suffered so severely suggests that recovery will be gradual and attended by not infrequent set-backs.

Each step of progress toward prosperity must bear with it the undoubted credentials of business integrity before legitimate industries will either accept or act upon it. It is a mistake to suppose that capital is so unusually eager for employment as to abate something of its recent watchfulness as to security. The large amounts of money that have been withdrawn from speculative ventures within the last six months have either gone into sound, permanent investments or been placed where they might safely earn a moderate rate of interest and be immediately convertible into funds if needed. The ruling tendency has been, and still is, to base all changes in the forms of capital upon

the probable safety of the principal rather than upon the tempting bait of large possible returns in interest. This is the pervading sentiment of speculation and trade alike, and actualities are looked for quite as constantly as ever before to guide the fluctuations in prices and in the demand for commodities. It is obvious that the farmer, the manufacturer, the railroad manager, the tradesman, and the speculator can never be wholly satisfied with the business situation under a healthful condition of affairs, but it is safe to assert that the present methods of their common operations promise to bring about a most satisfactory return of universal prosperity to this country if consistently carried out in the future.

In the face of the holiday, which was generally observed last Monday, the movements of merchandise last week were larger than for the previous six business days. Though there was no special activity or appreciation in dry goods, the trade seems to be in a stronger condition, stocks being lighter and consumptive requirements showing some apparent expansion. Both raw cotton and wool have enjoyed better markets and stiffer prices because low prices have induced increased consumption, and both the crop of the former and the new clip of the latter promise to show a reduction from last year's returns. During the nine months since September 1, 1885, the consumption of cotton in this country has increased 400,000 bales over the same months last year, while the European consumption is reported at 100,000 bales of 400 pounds each larger than for the same period a year ago. This improvement has come during the recent months, and the disposition to purchase is now strong, whereas foreign spinners were materially cutting down their consumption last summer at this time.

The industrial situation is better with steel rails, and the first grades of pig-iron active and firm. Anthracite coal, the lower grades of pig-iron, and petroleum have been weak and "bearish," but susceptible to the slightest changes of sentiment in consumers.—Chicago Inter-Ocean.

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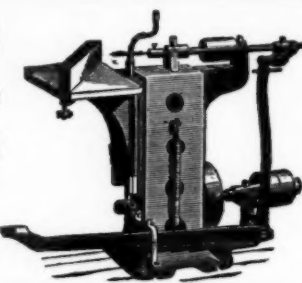
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## The American Exhibition in London.

It will be remembered that the MANUFACTURERS' RECORD has repeatedly advised the people of the South not to spend money in preparing to make a display at the American Exhibition to be held in London in 1887, unless they could secure some positive assurance of the financial condition of the enterprise. When first organized, its management did not seem to be in the hands of men who could be relied upon to make it a success from any point of view, and hence our advice to Southern people. While no public statement has ever been made, so far as we can learn, of the financial backing of this enterprise, its management is now apparently in good hands.—Hon. E. B. Washburne, of Illinois, having lately been elected president. An exhibition of this kind ought to be very valuable in making known to the Old World the resources and progress of the United States, and if the managers will convince the public that it is not simply a speculative scheme without sufficient financial support, then it will be well for the Southern people to use it to advertise the vast mineral, agricultural and timber wealth of their country.

At a banquet given to Mr. Washburne, the new president, in Philadelphia, June 7, in the course of a speech delivered by him, he said:

"The proposition of an American Exhibition in England in the heart of the greatest city in the world was a happy inspiration; it gives our country an opportunity to make known to England and to all Europe what has been our progress in the arts, the sciences and in manufactures, and in the development of all those great industries which have been subordinated to the uses and purposes of man. There were, I believe, 10,000,000 admissions to the Centennial Exhibition; of this number, I am told, that it has been estimated that not more than 1 per cent. were Europeans. If the Centennial did so much to make America known abroad how much will be accomplished by this American Exhibition, where of the millions who will go to see it not more than 1 per cent. will be Americans,—all the rest being foreigners. It will tell the story of our greatness to the furthestmost ends of the earth.

England stretches out its hand of welcome. Let us grasp it in the spirit in which it is proffered. Let us show to the whole world how much has been accomplished where liberty regulated by law has been sublimated to the highest degree.

If there be any who think this American Exhibition in London will not be a success and an honor to our country and interest all Europe, they little appreciate the curiosity and interest already felt abroad in the enterprise, the ingenuity, the skill and the unpausing activity of our countrymen, nor do they understand the desire to be better informed as to our wonderful and varied inventions, the variety and extent of our products and resources, our manufactures and improvements. All these must extort the admiration of the whole world and show the strength and stretch of American ingenuity and enterprise.

We will not only carry to London so many wonderful inventions and exhibits, and show so many evidences of American skill and taste, but we can take plans and specifications for the settlement of all fishery and other disputes which tend to disturb the harmony of the two countries. We will show that in the future, as in the past, the two greatest nations on the face of the earth can arrange all their differences in a just and friendly spirit, alike honorable to both.

All the people of the United States must feel the deepest interest in a great undertaking which promises to serve the best interests of all the nations. Let all our inventors, all our manufacturers, all our agriculturists and artists, all our merchants and

business men, and our people of whatever pursuit, lend their aid to this great enterprise, which should illustrate to the whole world our material progress, our grandeur and our power."

Following Mr. Washburne, Mr. John R. Whitely, the director-general of the Exhibition, spoke as follows:

"My portion of the good work accomplished has been of the most agreeable character. I commenced two years ago to take the opinion of representative men in Great Britain, including well-known merchants and manufacturers, upon the kind of feeling they had at the contemplation of an invasion by Americans, and most of the gentlemen here present know of the hearty responses which we received from representative Englishmen of every class.

The Centennial Exhibition was the first great public act which opened the eyes of Europeans to the astounding possibilities of this continent in the arts of peace. No further evidence was needed to prove the fearful strength of the country in matters of a warlike character.

By complementing the great effort of 1876 with a very carefully selected exhibit, in a city which is so easy of access to Europeans in their millions, Americans will take such a position in the old world and amongst the colonial buying agents who reside in London that your exports will be hugely increased and the influx of capital from Europe to the United States will be very largely augmented.

Her Majesty, Queen Victoria, will commemorate in London next year in June and July the fiftieth anniversary of her reign. Invitations will be issued to the various Courts of Europe and to the most distinguished representatives of the various European countries to be present at the celebration of that jubilee.

No attraction can be imagined more appropriate on such an occasion than that the 'eldest born' and his family should pay an official visit to the old 'roof tree,' and show to the astonished multitudes the handiwork of his boys in this far off Western land—this home of all coming excellence and culture.

American consuls in various parts of Europe inform us already of the committees which are being formed to facilitate the bringing of visitors from all parts of Europe to the great American Exhibition in London, whilst as to visitors from residents in Great Britain, their name will be legion.

There are even 10,000,000 of them resident within sixty minutes by rail of the exhibition, and from all parts of the Kingdom persons will be brought into the grounds by rail without the necessity of going from under cover, for all the trunk lines have running powers right up to the main building."

Mr. B. E. GRACE, SR., the agent in Birmingham of Mr. Samuel Thomas and associates, gives some interesting facts in a letter published in this issue regarding the investments of these gentlemen.

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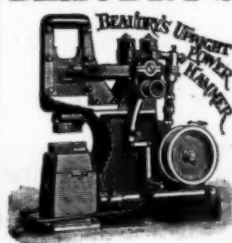
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4,000 ft. 3 in. & 52 ft. 6 in. Gas Pipe.

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AN ESTABLISHED BUSINESS and a splendidly built two-story brick building erected expressly for it. Fine opening for a man of small means, who wants to engage in the manufacturing, repairing and selling of buggies, wagons, plows, etc. Reason for selling: Desire to engage exclusively in the manufacture of farm wagons for the wholesale trade. Apply or write to Owensboro Wagon Manufacturing Co., Owensboro, Ky.

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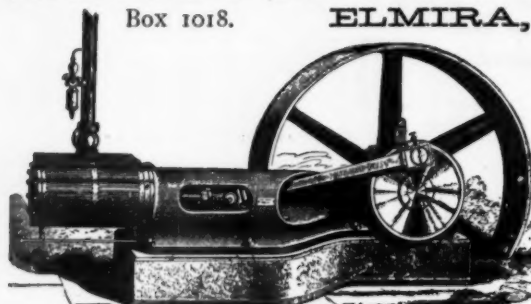
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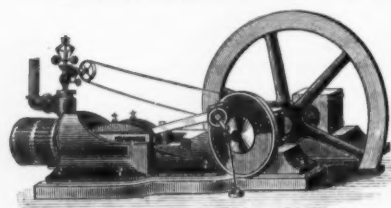
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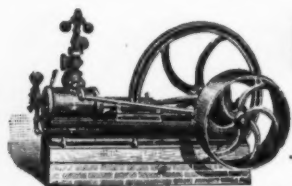
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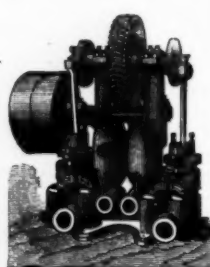
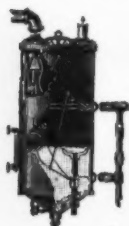
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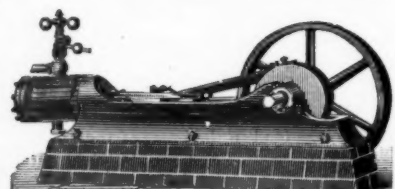
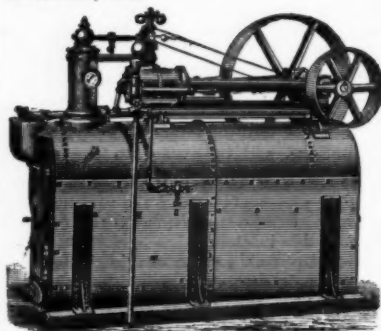
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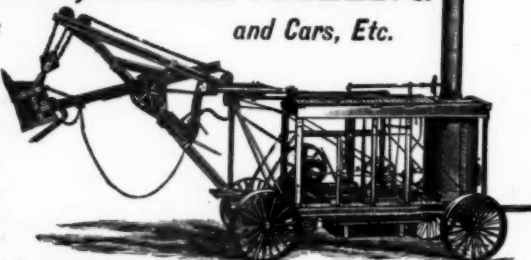
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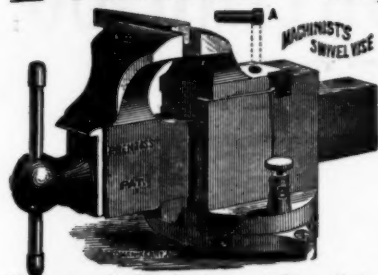
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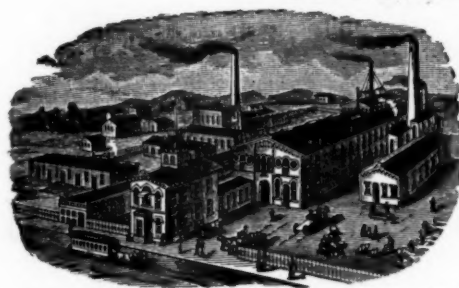
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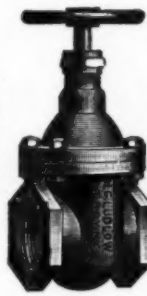
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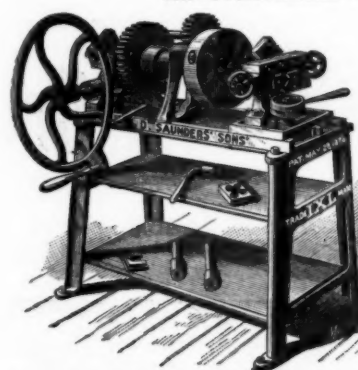
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# FIXED NOZZLE AUTOMATIC INJECTOR OF 1885.

Either a lifter or non-lifter; no extra valves or fittings required; tubes can be removed without disturbing pipe connections; is perfectly automatic in its action; requires no special manipulation to operate it.  
Descriptive pamphlets and prices furnished on application to

Philadelphia Office, or to New York Office, 79 Liberty Street.

# The TABOR MANUFACTURING CO.

—SOLE MANUFACTURERS OF—

# TABOR STEAM ENGINE GOVERNOR

Patented April, 1883, and December, 1884.

WILL REGULATE AS CLOSELY AS THE BEST AUTOMATIC CUT-OFF ENGINE.

Perfectly adapted to every type of Stationary and Portable Engine.  
Fitted with speed adjuster, Sawyer's Lever and Automatic Safety Stop.

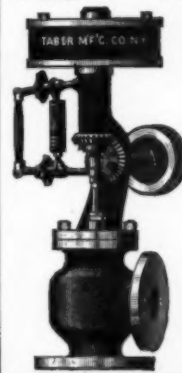
**SIMPLE, SENSITIVE AND DURABLE.**

All Parts Interchangeable.

SEND FOR SPECIAL CIRCULARS AND PRICE LISTS.

OFFICE AND SALESROOM,

113 Liberty Street, - - - New York City.



# BACON

Winding Engines,  
Furnace Hoists,  
Mine Hoists.

(With or without Boilers.)

"Mining Plants," Concentrating Works, and Dredging Machinery Furnished Complete.

# COPELAND & BACON,

85 Liberty Street, New York.

FAI BANKS & CO., Agents,

References: { Croton Magnetic Iron Mines, Brewster's, N. Y.  
Crown Point Iron Co., Crown Point, N. Y.  
Belvidere Iron Co., 52 Broadway, N. Y.  
Sea Island Chemical Co., Beaufort, S. C.



# "STEAM"

A valuable book for every Steam user and Engineer,

published for FREE DISTRIBUTION by

# THE BABCOCK & WILCOX CO.,

Manufacturers of

# WATER-TUBE BOILERS,

107 Hope St., GLASGOW.

39 Cortlandt St., NEW YORK.

# THE MIDVALE STEEL CO.

# TIRES and AXLES

OF EVERY DESCRIPTION.

—TOOL—  
MACHINERY STEEL



STEEL.  
SPRING AND GUN

CRUCIBLE AND OPEN HEARTH STEEL.

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We offer you the experience of 15 years, unbiased by interest in any patent. Write us. We will make specifications for you or do your work, or both.

ENGINEERS and CONTRACTORS.

**E. H. COOK CO. LIMITED**

**WARMING.**

Steam & Hot Water.

ROCHESTER, N. Y.

Hot Water is the system for the South. Correspondence invited. Economy. Efficiency. Durability. Best Methods. Housework a Specialty. See References.

**WARMING AND VENTILATION.**

A Perfect Success by Our Apparatus.

24 SIZES

Low Pressure Generators

PRETTIEST DIRECT RADIATION.

LARGEST MANUFACTURERS OF INDIRECT AND WINDOW RADIATION.

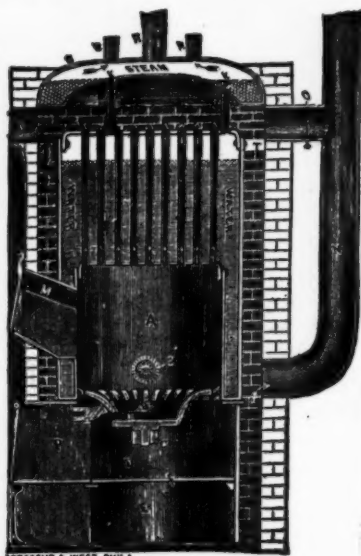
**LIGHT'S PATENTS**

The Most Popular with the Trade. Descriptive and Trade Circulars on Application. Plans and Estimates by a Skilled Engineer.

**EUREKA Steam Heating Co.**

202 State St. ROCHESTER, N. Y.

Our sales from year to year have doubled with good satisfaction every where. Send for Circulars.



**Emery Wheel Tool Grinder.**

Pat. Sept. 25th, 1883.

Four sizes of each of these designs.

Grinds much FASTER than grindstones and will soon save their cost. WHEELS ARE MADE TO RUN IN WATER. Will ship on their merits for 30 days' trial, and if not satisfactory can be held subject to our order. We make the largest line of machinery with Emery wheels running in water of any company in the world.

SPRINGFIELD GLUE & EMERY WHEEL COMPANY,

SPRINGFIELD, MASS.

**HOWARD IRON WORKS,**

BUFFALO, N. Y.,

MANUFACTURERS OF

Schlenker's Automatic Revolving-Die

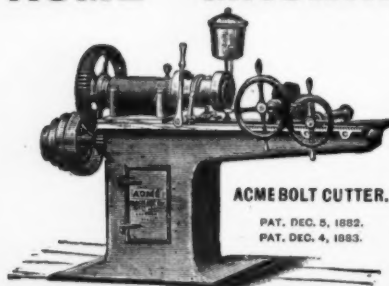
**BOLT CUTTER**

And Nut Tapping Machines

In use in the principal Railroad and Machine shops in the Country.

SEND FOR CIRCULAR PRICE-LISTS.

**ACME MACHINERY COMPANY,**  
CLEVELAND, OHIO.



ACME BOLT CUTTER.

PAT. DEC. 5, 1882.  
PAT. DEC. 4, 1883.

Advantages of the "Acme" Bolt Cutter:

Large bearing on top of Dies by using a Cap. Fine adjustment by differential screw. Positive Toggle Lock. Die-ring connected to Barrel. Positive Motion. Every part exposed to view, it cannot clog with chips or scale. Quickness of changing Dies, (in less than a minute.) No springs used. Index on Head so a fit can be cut at once. Cheapness of Dies. Advantage of Plain and not the disadvantage of Case Dies. Reversible Dies. Even number of Dies and ahead of center. All wearing parts are tempered Steel, made to Jigs and Standard Gages, and are interchangeable. Dies cut in one Head will fit any other, and where more than one Head is used this is a very vital point. The ACME Head can be put on putting an "ACME" Head and Dies on it.

almost any Bolt Cutters, and parties having other make of machines will find a great improvement by putting an "ACME" Head and Dies on it.

**JEWELL BELTING CO.**

SUCCESSORS TO

P. JEWELL & SONS,



— MANUFACTURERS OF —

**LEATHER • BELTING**

— AND —

**LACE LEATHER,**

HARTFORD, CONN.

**Queen City Printing Ink Co.**

CINCINNATI, OHIO.

WITH WHICH THIS PAPER IS PRINTED.  
IS MADE BY THE  
**THE INK** QUEEN CITY PRINTING INK CO.  
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MANUFACTURERS OF ALL DESCRIPTIONS OF

**INKS!**

• Varnishes and Sizes •

FOR PRINTERS' USE.

New York Office, . . . 194 William Street.

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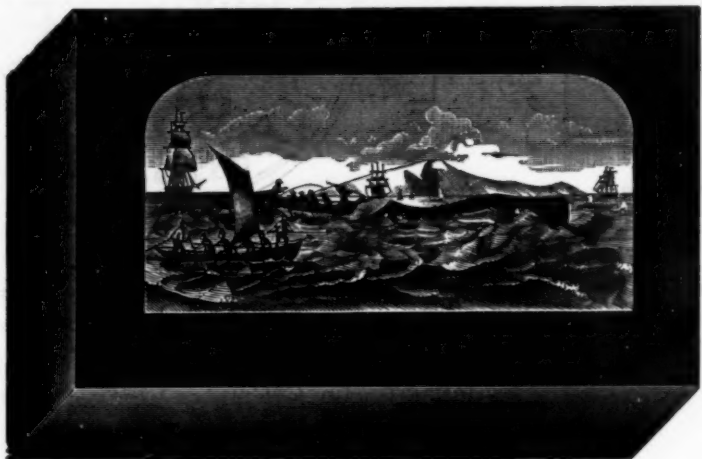
The Oldest Oil House in the City. Business Established 1832 (on Present Premises.)

## WM. C. ROBINSON & SON,

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Manufacturers and  
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# OILS!

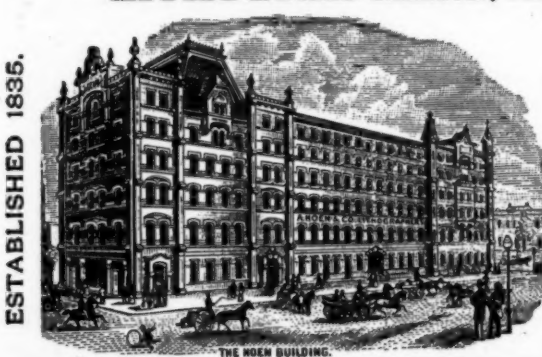


Specialties—Oils for Cotton and Woolen Mills, Railroads, Tanners' and Machinery Use.

Our Colophine Cylinder Oil is the best in use, 650° fire test, 28° gravity. Perfect Engine Oil 600° fire test, 26° gravity. Colophine Engine Oil 550° fire test, 23° gravity. Agent for Downer's Spindle, Champion and Mineral Sperr, Meriam & Morgan's Paraffine Co's Paraffine, William's Odorless Lubriphene Oils. Also Manufacturers' Agent for 24°, 28° and 30° Paraffine, and 31° Neutral Bloomless Oils. Correspondence solicited.

## A. HOEN & CO.

LITHOGRAPHERS, BALTIMORE MD.



Our facilities for the production of

**ARTISTIC  
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AND ALL STYLES OF  
**Fine Commercial Engraving**  
Are Unsurpassed.

All work executed under careful and personal supervision at prices consistent with first-class productions. Sole proprietors of the  
**CELEBRATED  
LITHOCAUSTIC PROCESS**  
Branch Establishment:  
Hoen Building, RICHMOND, VA.

## Roller Detachable Chain Belting

—FOR—

Elevators, Conveyors,  
Carriers, and for  
**Driving Purposes.**

Especially adapted for the economical handling of

CLAY, COAL, ORES, BROKEN STONE, ICE,  
STRAW, DRY and SPENT TAN, SAWDUST,  
LUMBER, GRAIN, SEEDS, Etc.

Manufactured and Sold by

**Roller Chain Belting Co.**  
COLUMBUS, OHIO.

Also Manufacturers of the Legg Coal Mining Machines and  
Rotary Power Coal Drills. Send for Illustrated Catalogue and Price-List.

## ATLANTA RUBBER COMPANY,

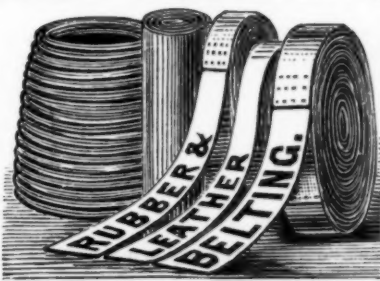
ATLANTA, GA.

RUBBER BELTING,  
PACKING, HOSE, &c.

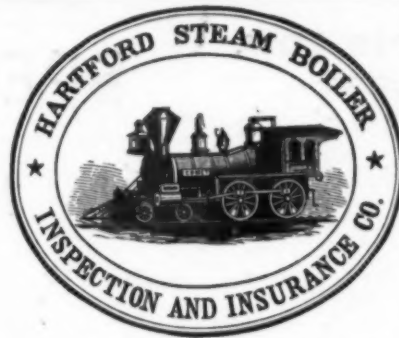
PURE OAK LEATHER BELTING,  
MILL SUPPLIES AND  
ALL KINDS OF RUBBER GOODS.

AGENTS:

NEW YORK RUBBER CO'S BELTING, &c.  
HOYT'S LEATHER BELTING.  
NEW JERSEY RUBBER SHOE CO.



—ISSUES—  
POLICIES OF INSURANCE  
AFTER



A CAREFUL INSPECTION  
OF THE

BOILERS,

Covering all  
Loss or  
Damage to

## Boilers, Buildings & Machinery

ARISING FROM STEAM BOILER EXPLOSIONS.

The Business of the Company Includes All Kinds of Steam Boilers.

Full information concerning the plan of the Company's operations can be obtained at the  
**COMPANY'S OFFICE, Hartford, Conn.,** or at any agency.

**M. ALLEN, Pres't. W. B. FRANKLIN, Vice-Pres't. J. B. PIERCE, Sec'y.**

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## WORSWICK MFG CO.

MANUFACTURERS OF  
**MALLEABLE AND CAST IRON FITTINGS,**  
AND BRASS COODS.

JOBBERS OF  
Plumbers, Gas & Steam Fitters' Tools and Supplies.

AGENTS FOR

IRON PIPE AND BOILER TUBES.

Corner St. Clair and Water Streets, CLEVELAND, O.

## WALKER MANFG. CO.



Shafting,  
Hangers,  
Pulleys.

Pulley Castings and  
Machine-Molded

**GEARING**

A SPECIALTY.

Cleveland, - Ohio.

Estimates furnished. Write  
for Gear and Price-Lists A.



## NIAGARA PHOSPHATES MIXER,

**D. U. JENNINGS. - - - 108 Liberty Street, N.Y.**

REPRESENTING

**UNION FOUNDRY and MACHINE SHOPS,**

SOLE MANUFACTURERS,

ROCKAWAY,

NEW JERSEY.

D. U. JENNINGS,

Representing  
M. HOAGLAND.



## THE SCIENTIFIC PORTABLE FORGE

AND

## BLACKSMITH HAND BLOWERS.

GUARANTEED

The Lightest Running! The Strongest Blast!  
The Most Durable!

ADAPTED TO ALL KINDS OF WORK,

Send for Catalogue! AND MADE IN STYLES AND SIZES TO SUIT.

**THE FOOS MANUFACTURING CO., - - Springfield, Ohio.**







## Literary Notes.

**THE MAGIC OF A VOICE.** By Margaret Russell Macfarlane. New York: Cassell & Co.

This is a German novel—that is, the characters, the location, &c., are German, though the book is not a translation from the German, as one would suppose from reading it. It is a well-written, fascinating novel. In the first three or four pages the keenest interest is aroused by "the magic of a voice," and it will be found difficult to put the book down without having finished it.

**PROFITS IN POULTRY;** Useful and Ornamental Breeds. Price \$1.00. New York: The O. Judd Co.

Poultry raising as a business has grown rapidly in the last few years, and is becoming more and more popular. This volume contains a large amount of information indispensable to those who desire to engage in the raising of poultry, either for pleasure or profit. It embodies the experience of a number of the most successful breeders, and has been carefully prepared to meet the wants of those who need specific information on all topics pertaining to poultry. The book is profusely illustrated and is very neatly printed and bound.

**THE** Encyclopædic Dictionary, published by the Cassell Co., London, Paris, New York, is one of the greatest works of the kind ever issued. In addition to the characteristics of a dictionary as a work of reference to all the words in the English language, with a full account of their origin, meaning, pronunciation and use, it possesses the features of a condensed encyclopædia. Its definitions are fuller and more complete than in any similar publication, and it goes further into the various uses and meanings of words, and gives full explanations and descriptions of matters historical, scientific, legal, mechanical, etc. The text is profusely illustrated with engravings that have been executed with great care.

## TRADE NOTES.

**THE** Kentucky Scale Co., of Louisville, Ky., have just issued a neatly illustrated catalogue, showing their complete line of scales, trucks, etc., and giving latest prices. This company manufacture railroad, track, depot, coal, hay, stock, dormant, hopper, warehouse, platform and counter scales, beside the smaller sizes and those handled by the trade. The best materials only are used in the manufacture, and the scales are made of the latest improved patterns, by experienced workmen. The catalogue will be sent free upon application.

**R. M. MCBETH**, 185 West Pearl street, Cincinnati, now makes a speciality of manufacturing upright drills, and reports his new drills in such demand that he will be obliged to increase his capacity. A new 25-inch back-gear power feed drill has just been invented and perfected by Mr. McBeth, and will soon be ready for manufacture. An illustrated catalogue and price-list will be sent free upon application.

**THE** Louisville Asphalt Varnish Co., Louisville, Ky., report their business steadily growing throughout the rapidly developing South. They manufacture a celebrated brand of asphalt iron paint for outside use on tin, iron, wood, brick or canvas, and for bridges, freight cars, roofs, docks, piers, furnaces, mills, factories, barns, decks of ships, etc. They are now making a new brand of asphalt iron paint to cover and protect piping in ice and refrigerator machines, and which can also be used on steam pipes and radiators, and look fresh and new for years. A sample of the four principal brands of the asphalt iron paint, on tin, will be sent free.

AMONG the new advertisements in this issue will be found that of Fitzmorris & Smith Foundry Facings & Supply Co., of Cincinnati, Ohio. Their business was established in 1879, and they stand high as inventors and manufacturers of all kinds of foundry facings; they are importers of graphite plumbago and black lead and dealers in foundry supplies. They would especially call attention to their heavy stove plate and return facings, and new heavy machine facings and blackings, which are gaining a widespread reputation. Sea coal, stone coal, charcoal, soapstone facings and Monk's moulders' tools are also included in their stock. Satisfaction will be guaranteed, both as to quality and price of all goods. They will furnish prices upon application.

**MESSRS. CHARLES KAESTNER & Co.**, of Chicago, have recently booked the following orders: Complete plant for the new electric conduit factory now being erected by Messrs. Dorsett & Benedick in New York City; brew-house machinery complete for F. X. Wochner, of Bloomington, Ill.; brew-house machinery for F. J. Dowes Brewing Co., Chicago; friction clutches and general machinery for Earnest Bros. Brewing Co., Chicago; shafting, pulleys, hangers and Kaestner's Patent Friction Clutches for Messrs. Underwood & Co., of Chicago; complete machinery for dry paint factory at Poyette, Wis.; one 30-inch Kaestner Lead & Zinc Mill and 200-gallon mixer for I. L. Ellwood & Co., of DeKalb, Ill.; two 30-inch Kaestner Mills for the North Chicago City Railway Co., and 20-inch Kaestner Mill, Western Sheller, shafting, pulleys, etc., for George C. Sutton, Philadelphia, Mo.—American Miller, Chicago.

**DEAN BROTHERS** Steam Pump Works, Indianapolis, Ind., have just issued a handsomely illustrated catalogue, No. 13, fully describing and illustrating their complete line of steam pumps; with directions for setting up and running pumps; "Hints on Hydraulics," boiler supply and other valuable and new information. It will be sent free to the readers of the MANUFACTURERS' RECORD upon application.

**CAPITALISTS** looking for opportunities for investment will find the advertisement of Messrs. Moon & Renick, Richmond, Va., of interest. They offer for sale among other properties lands containing basic and Bessemer steel ores, on lines of railroads, with limestone and coking coal contiguous.

**PARTIES** in the South having property for sale should consult Clarence Gordon, Esq., 59 Liberty street, New York, who handles Southern real estate under a new system possessing advantages for both seller and buyer. Particulars may be had from his advertisement which will be found elsewhere. Persons desiring to invest in the South will learn of some fine opportunities by conferring with Mr. Gordon.

**MR. GEORGE H. CORNELSON**, Orangeburg, S. C., advertises in this issue a lot of 3-inch and 6-inch gas pipe for sale which has been but little used.

A 65-horse-power steam engine, warranted good as new, is advertised as for sale, cheap for cash, by W. C. Buchanan, Lancaster, Pa.

A GOOD opening for a man of small means who wants to engage in manufacturing in the South is presented in the advertisement of the Owensboro Wagon Manufacturing Co., Owensboro, Ky.

**THE** American House, Boston, is one of the most renowned hotels east of New York. It is liberally and unexceptionally kept, and offers the strongest possible inducements to travelers visiting that city.

**MANAGERS** of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

## Important.

The improvements of the Grand Union Hotel are simply elegant, and the hotel is always kept in perfect order. It is so convenient to all the depots that guests arriving by the Grand Central Depot have their baggage transferred to and from the Grand Union Hotel in five minutes, free of charge. Guests arriving by steamer or railroad, South, North, East or West, are conveyed to the Grand Union Hotel by the elevated railroad for five to fifteen cents, thereby saving \$3 carriage hire. During the past year 110,000 people occupied the 613 rooms of the Grand Union Hotel at \$1 and upwards per day, including of course its elegant suites of rooms for families on the European plan. The dining-rooms, restaurant, cafe, lunch and wine-rooms were supplied with the best at moderate prices. Families lived better at the Grand Union Hotel, and for less money, than at any other first-class hotel in New York.

## List of Patents

The following Patents were granted to citizens of the Southern States, bearing date June 1, 1886. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Craig, J. A., Lauderdale, Miss.	Car-coupling	343,109
Delker, Geo., Henderson, Ky.	Running-gear for wagons	343,114
Dickey, J. S., Payne, Texas.	Churning-device	343,015
Farnsworth, H. T., Richmond, Va.	Pulley	343,018
Fischer, John, Louisville, Ky.	Trace-buckle	343,118
Gilliland, J. R., Gadsden, Ala.	Combined cultivator and corn planter	342,791
Halton, Samuel, Louisville, Ky.	Car-coupling	342,793
Hutton, G. H., Baltimore, Md.	Jump-seat	342,964
Jacobs, W. R., and S. C. Houston, Sulphur Springs, Texas.	Railway-gate	343,034
Leighton, William, Jr., and W. F. Russell, Wheeling, W. Va.	Manufacture of opalescent glassware	343,123
Mansfield, G. J., Viola, Tenn.	Water-elevator	342,919
McGee, R. D., Owensborough, Ky.	Axle cutter	343,058
Moller, M. P., Hagerstown, Md.	Pipe organ	343,049
Palmer, J. R., Wide Awake, Ky.	Churn dasher	342,839
Richardson, W. H., Baltimore, Md.	Cotton chopper	343,140
Rohrer, J. M., Chewsaville, Md.	Spring draft tug	343,068
Sayre, R. H., New Martinsville, W. Va.	Vehicle-brake	342,933
Schleier, Carolina E., Nashville, Tenn.	Convertible chair and table	342,847
Spelman, Michael, Shreveport, La.	Car-coupling	343,086
Strickle, J. W., and G. R., Louisville, Ky.	Car starter and brake	343,144
Whitlock, J. G., Richmond, Va.	Fitting for steam and other valves	342,853
Williams, C. W., Cave City, Ky.	Railway-telegraph	343,095
Zevely, Van Neimen, near Elgin, Tex.	Rein-holder	343,098

## PATENTS FOR INVENTIONS

(American and Foreign.) Trade Marks, etc., procured through the agency of

**Arthur C. Fraser & Co.**

TEMPLE COURT, NEW YORK CITY.

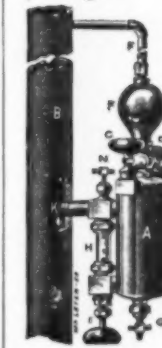
(Entrance 5-7 Beekman St.) Hand-book of information sent free to any address.

## ARCTIC ICE MACHINE MFG. CO.

Works, 4, 6, 8 & 10 West Street, Cleveland, O.

Manufacturers of Machines for Making Ice and for Refrigerating Breweries, Pork Houses and buildings of all kinds requiring a steady, low temperature. Over 100 of our machines now in use. Send for any particulars desired. P. O. Box 92, Cleveland, Ohio, or P. O. Box 348 Cincinnati, Ohio.

## THE DETROIT Sight Feed Lubricators



Have revolutionized the system of oiling valves and cylinders of steam engines. The oil is delivered through the SIGHT FEED GLASS drop by drop into the steam pipe, lubricating perfectly all the parts from throttle valve down, effecting a sufficient saving in oil and wear of machinery to pay for the Lubricator several times a year. It costs nothing to try them, as one will be sent on thirty days trial to responsible parties, thus enabling a thorough test to be made before paying for the Lubricator. We refer to 20,000 users, including nearly all the leading railroads.

## CAUTION.

As these Lubricators are covered by patents owned solely by this Company, parties should order only the "DETROIT SIGHT FEED CURS," thus securing the best article and avoiding all legal complications. Liberal discount to the trade.

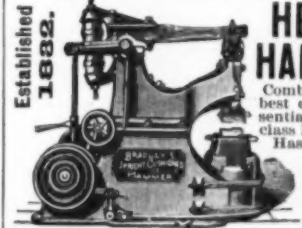
ADDRESS,

**DETROIT LUBRICATOR CO.**

Office, 129 Griswold Street,

DETROIT, MICH.

## BRADLEY'S UPRIGHT CUSHIONED HELVE HAMMER



Established 1832. Combines all the best elements essential in a first-class Hammer. Has more good points, does more and better work and costs less for repairs than any other Hammer in the World.

**BRADLEY & CO.** Syracuse, N. Y.

## TAPER-SLEEVE PULLEY WORKS,

No. 211 W. 12th Street,

ERIE, PA.

Manufacturers of Taper-Sleeve Wood Belt Pulleys, Adjustable Dead Pulleys, Friction-Clutch Pulleys, Friction



Clutch Couplings, Wood Pulleys in Halves, Taper Sleeve and Compression Couplings, Shafting, Post and Drop Hangers. Correspondence Solicited. Friction-Clutch Pulley.

The Hardware Trade Should Sell the Ligowsky-Mueller Trap No. 7 with "TEIPEL ARM" for TONGUELESS Ligowsky "Clay Pigeons, No. 2." C. P. CO. Cin'ti, O.

## HUGH SISSON &amp; SONS,

140 W. Baltimore St., Baltimore,

MANUFACTURERS OF

## Marble Monuments

Tombs, Altars, Counters, Furniture Slabs, Mantels, Tiles.

Estimates and Drawings Free.



## THE MARKETS.

OFFICE MANUFACTURERS' RECORD,  
BALTIMORE, June 9, 1886.

From all parts of the country the indications are promising for excellent crops, the outlook in the South being very good for the wheat, corn and fruit crops, while the acreage and condition of cotton are very nearly equal to the corresponding time last year, when the indications pointed to the largest crop ever produced. The late rains have come just when needed to save the crops from serious injury, and with favorable weather from now on the South will gather bountiful crops this year. In 1885 the wheat yield of the South was almost a total failure, whereas the prospects are now excellent for an unusually large crop. Harvesting will become general throughout that section in a few weeks, and the large yield will stimulate business and make money more plentiful.

In general trade there is nothing new, the present month being no exception to the rule that June is rather a dull month in nearly all lines of business. There is a fair degree of activity considering the season of the year, and the prospects are regarded as favorable for a decided improvement later on.

Manufactured iron exhibits no new features of interest, the enquiries continuing fairly numerous, but the volume of business is only moderate. Prices are as last quoted, viz:

Ref. Bar Iron, 1 to 6x 3/4 to 1.....	1.85@ 2 c
" " 1 to 4 1/2 x 1 1/4 to 1.....	1.85@ 2 c
" " 3/4 to 2, round and	
square.....	1.85@ 2 c
Hoop Iron, 1 1/2 wide and upward.....	2 1/4@ 2 3/4 c
Band Iron, from 1 1/4 to 6 in. wide.....	2.30@ 2 1/2 c
Horseshoe Iron.....	2.75@ c
Norway Nail Rods.....	4 1/2@ 5 c
Black Diamond Cast Steel.....	9 @ 10 c
Machinery Steel.....	3 1/2@ 4 1/2 c
Spring Steel.....	3 1/4@ 4 c
Common Horse Nails.....	8 @ 9 c
Railroad Spikes, 5 1/2 x 16.....	2 1/4@ 2 1/2 c
Horse Shoes, 1/2 keg.....	3 85
Mule Shoes.....	4 85
Steel Boiler Plate.....	3 1/4@ 3 3/4 c
Iron Boiler Plate.....	2 1/4@ 4 c
Boiler Tubes.....	55¢ off list

The local pig iron market is dull with sales small at about former prices. Notwithstanding the low prices of iron there is increased activity in the building of furnaces in the South, principally in Alabama and Tennessee, the two States which are attracting the greatest attention in the iron making line. It is expected that the visit to the iron centers of these States of a large number of Eastern pig iron men who propose to make a personal investigation of their advantages for making iron, will result in the investment of considerable additional capital in this industry. We quote prices nominally as before:

Baltimore Charcoal Wheel Iron (all	
Baltimore ore).....	\$5 00@26 00
Virginia C. B. Charcoal Wheel Iron.....	25 00@26 00
Anthracite, No. 1.....	18 00@19 00
" " 2.....	16 00@17 00
" " 3.....	15 00@16 00
" Mottled and White.....	13 00@14 00
Old Iron Rails.....	19 00@20 00
Old Iron Rails, D. H.....	20 00@21 00
Old Steel Rails.....	20 00@22 00
No. 1 Wrought Scrap.....	19 00@20 00
Old Car Wheels.....	15 00@16 00

The New York Commercial Bulletin, of June 9, says:

There is no apparent change in the market for American pig. The new business passing is of moderate proportions, and the demand generally continues to be of a spiritless kind. Still, deliveries are quite liberal in the aggregate, and of no other than inferior or "outside" iron is there an accumulation of supply that would cause the least anxiety to sell. It does not transpire that these less popular makes are offered any lower at the present time than they have been for some time past, however, and not even an intimation is made of standard brands selling at less than \$18 for No. 1 X foundry, \$17 for No. 2 X foundry and \$16 for grey forge. Scotch pig is about steady at previous quoted prices, with a fair movement of small lots, but otherwise no business to speak of. Quoted: \$17.50@17.75 for Eglinton, \$18.25@18.50 for Dalmellington, \$18.50@18.75 for Glengarnock, \$19 for Gartsherrie, 19.25@19.50 for Summerlee, \$19.50 for Lang-

loan and \$19.75@20 for Coltness.

Old material.—Wrought scrap remains very quiet, with \$18.50@19 the nominal prices for No. 1. The rails are without further movement and in light demand; prices are nominally about \$19. Fish plate quoted at \$24, with sales of 200 tons on p. t. Car wheels about \$15, and crop ends \$21, on spot.

Steel rails.—Sales have been made in the past few days of about 10,000 tons at \$34, at works. The demand still holds out good and the market remains firm in tone. The much-talked-of foreign competition has very little influence up to the present time.

## HARDWARE.

As usual at this season business is only moderate in general hardware, but active in season goods, the volume of trade keeping well up as compared with last year. There are no changes of importance to note in prices.

The effect of the labor troubles is still felt in nails, owing to the small building operations now in progress. The demand continues light, and while prices are nominally \$2.00@2.10, according to quantity, some sales are being made at \$1.90, and it is reported that even these figures are shaded in buyers' favor.

## Philadelphia Iron Market.

PHILADELPHIA, June 8, 1886.

Everything seems to be at a standstill. The makers of bar iron are waiting to see what their workman will do before coming to a conclusion to curtail production. There is a disposition to shut down unless demand improves. The shut-down will not be general nor very long should it take place, because stocks are light in consumers' hands, and stores have very little to go and come on. Still there is an unwillingness to go far beyond the market demand. Small orders are being picked up every day at \$1.70 to \$1.90, and car builders help to keep things moving. The Delaware River Ship Yards are also keeping contracts in good shape, and there is plenty of evidence to show that the ship yards will be busy all summer. The sheet iron makers have not been doing as much business as they have been figuring on, but are holding prices up very well. In fact, card rates are being paid on small purchases. Muck bars are worth \$29, and bringing it. Pig iron has been dragging all the week, and not a single large sale has been heard of. The better brands of foundry are bringing a good price, although no one will buy any more than he wants for immediate use. \$19 has been paid all the week for five or six of the better makes. There is plenty offering at \$18. Forge iron is not selling much, and, in fact, there has been but little inquiry for it this week, as mill men want to wait and see how things are going.

It is no news to say that skelp iron and wrought iron pipe are firm and active. The Eastern nail makers think their good time is about over. For the past few weeks nails have been creeping downward, and large buyers cannot be induced to place large orders now. Quotations are \$2 to \$2.10. In plate iron the usual weekly business has been done, but nothing more. In merchant steel the only thing to note is a little more inquiry, which probably means some good business in July. Bridge iron makers are kept quite busy, though a little annoyed occasionally at some very low offers from foreign makers. Three or four offers have been made for steel rails at \$34 for large lots at mill. Some business has been done at this inside figure. The rail makers here and elsewhere say demand is good. Old rails are selling at \$19 to \$19.50, and some contracts have just been placed at this bottom figure for shipment to interior points.

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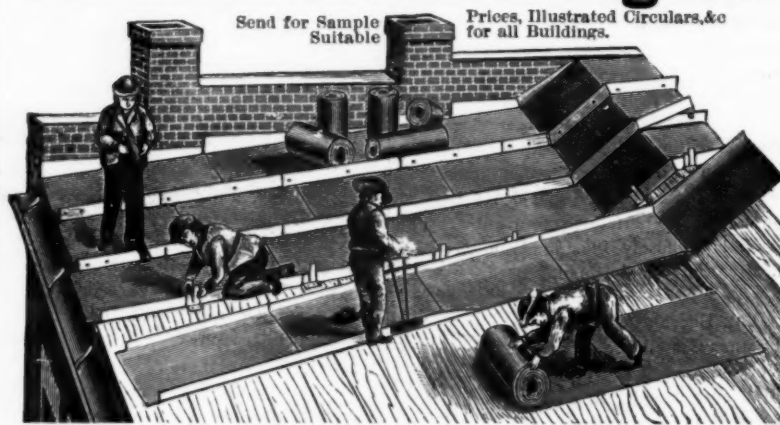
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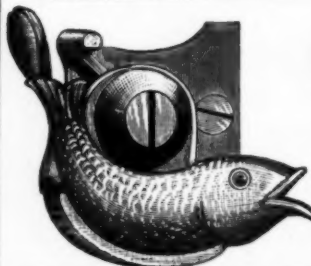
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ELMIRA, N. Y.

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AGENTS WANTED  
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## Cincinnati Iron Market Report

Specially reported by ROGERS, BROWN & Co., Pig Iron Commission.

CINCINNATI, June 7, 1886.

The iron market looks hopeful. Business has been good during the week. The features of animation and strength are lacking, but, on the other hand, there is no further tendency to weakness, and the distributing of some considerable orders among the late anxious sellers has had the effect to stiffen them up a little. Inquiries are more numerous than at any time since February. Sellers also get some encouragement from advancing stock and wheat markets. The dark sides to the situation are the heavy production in all Western and Southern districts, the dullness in certain foundry lines, the low prices for rolling mill products, and the stoppage of building resulting from the strikes. We quote for cash f. o. b. cars at Cincinnati:

## HOT-BLAST FOUNDRY.

Ohio and Southern Strong Coke No. 1.	16 50@17 50
" " " " No. 2.	15 50@16 50
" " " " No. 3.	15 00@16 50
Ohio Soft Stonecoal, No. 1.	17 00@18 00
" " " " No. 2.	16 00@17 00
Mahoning and Shenango Valley Coke, No. 1.	18 00@19 00

## CHARCOAL IRON.

Hanging Rock, No. 1.	19 00@21 00
" " " " No. 2.	18 00@20 00
Tennessee and Alabama, No. 1.	18 00@19 00
" " " " No. 2.	17 00@18 00

## FORGE.

Strong Neutral Coke	14 50@15 50
Mottled " "	13 50@14 50
Cold Short	13 50@14 50

## CAR WHEEL AND MALLEABLE.

Southern Car-Wheel Iron	21 00@25 00
Hanging Rock C. B.	26 00@28 00
" " W. B.	21 00@23 00
Lake Superior Malleable	23 00@24 00

Specially reported by E. L. HANFEL & Co.

CINCINNATI, June 7, 1886.

Inactivity prevails. No sales worthy of note. The rolling mills west of the mountains are not buying, only as they may require for present use, as no scale has been agreed upon with the Amalgamated Association for the coming year commencing July 1st. Until this question is settled there will be no special demand for Grey Forge iron. In the foundry trade there will, no doubt, be considerable activity during the summer months. Quite a number are anticipating their wants for June, July and August, while others are wanting to place orders extending into 1887. While there seems to be so little doing, it is encouraging to look back over the business of one year ago and find that, with the corresponding months of last year, our business has doubled itself. We quote for cash on wharf or cars here:

FOUNDRY.	Cash.
Hanging Rock Charcoal, No. 1.	20 00@20 50
" " " " No. 2.	19 00@19 50
Southern Charcoal	18 75@19 75
" " " " " "	17 75@18 75
Strong Neutral Coke	17 00@17 50
" " " " " "	16 50@17 00
American Scotch,	17 00@17 50

## GREY FORGE.

Neutral Coke	15 00@15 50
Cold Short	14 50@15 00

## CAR WHEEL AND MALLEABLE.

Hanging Rock, strictly cold blast	25 00@26 00
Hanging Rock, strictly warm blast	21 00@21 50
"Cranberry," N. Carolina Warm Blast	20 00@21 00
Amherst and Virginia Warm Blast	20 00@21 00
Lake Superior Charcoal, all grades	23 00@24 00

## Louisville Iron Market.

Specially reported by W. B. BELKNAP & Co., Nails, Wire, Iron, Hardware, Carriage and Wagon Goods.

LOUISVILLE, KY., June 7, 1886.

It is never safe to set one's expectations high for June business, and if anyone forgetful of the past has done so this year, he is apt to be the victim of disappointment. Orders are not large, but are numerous enough to justify the belief that the bottom has not dropped out of everything yet awhile, that the country is in a healthy state, and to foster hopes for something better in the succeeding months when fall trade begins to manifest itself.

Bar Iron—Is still dull, but fairly firm. There are no concessions of any consequence being offered on any hand.

Sheet is in a little better demand as buyers are making their inquiries for summer and early fall deliveries.

Nails.—As the price has sunk down to what is believed by most to be the cost of production or below, there is more activity in this great staple.

Wire nails continue to be used in fair quantities, but since the decline in the price of cut nails while the price of wire nails is maintained at previous figures, the comparison of advantageous weights and counts has somewhat faded out of sight, and we hear less of the wire nails supplanting the cut.

Wire.—The wire market is dull, but still there is enough moving to keep the situation more or less interesting for those who deal in the article. We quote:

Bar Iron	1 80@1 90
Crescent Steel	10 12
Plow Steel slabs	2 50
No. 27 Sheet	2 90
Galvanized sheet, best	50 55 1/2
Galvanized Iowa bar wire	4 75
Burdens Shoes	4 15
Junia Shoes	3 75
Carriage Bolts	7 50@10 1/2
Steel nails	2 65
Iron Nails	2 50
Rope, Sisal	8 60
Rope, Manila	12 1/2
Screws, American Screw Co's list	75 80 1/2
Axes	6 50
Cross cut saws, wide, per foot	26 38 cts.
Cross cut saws, narrow, per foot	21 21 cts.

With concessions to large or wholesale buyers.

Specially reported by GEO. H. HULL & Co., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, KY., June 7, 1886.

The market for pig iron is quiet and without change of note in price. Some furnaces, that are largely contracted ahead, are having all they can do to keep up their contracts, others are shipping to Eastern seaports, and accumulations at furnaces, as a general thing, are light. We look for a stiff market if furnaces do not stop running, in view of the expected strike next month. We quote for cash as below:

## PIG IRON.

Southern Coke, No. 1 Foundry	17 00@17 50
" " " " " "	16 00@16 50
" " " " " "	15 50@16 00
Hanging Rock Coke, No. 1 Foundry	16 50@17 00
" " " " " "	16 00@16 50
Southern Charcoal, No. 1 Foundry	17 50@18 50
Silver Gray, different grades	15 00@16 00
Southern Coke, No. 1 Mill, Neutral	15 00@15 50
" " " " " "	14 00@14 50
" " " " " "	14 50@15 00
Southern Charcoal, No. 1 Mill	17 00@17 50
White and Mottled, different grades	13 00@14 00
Southern Car Wheel, standard brands	25 00@26 00
" " " " other brands	21 00@22 00
Hanging Rock Cold Blast	25 00@26 00
" " Warm " "	20 00@21 00

## Chattanooga Iron Market.

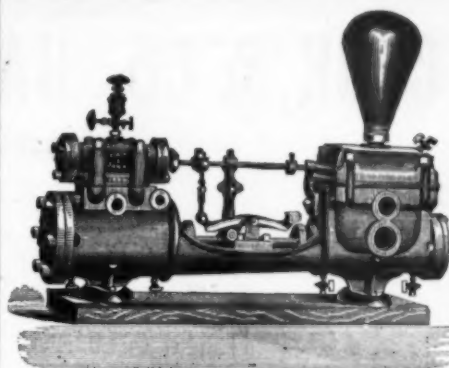
Specially reported by LOWE & TUCKER, Brokers and Commission.

CHATTANOOGA, TENN., June 7, 1886.

There are no new features to note in the general business of the country. Copious rains have fallen through the South, and the crops are all looking well. The entire farming community are busy in the fields, and country and city merchants are enjoying a holiday. There has been manifested during the past week a more spirited demand for pig iron, and inquiries are more frequent from the Northwest, with some important sales. While prices remain unchanged, there is a feeling among the producers that prices will go no lower, and will probably stiffen up very soon. In reference to new furnaces, there is now a certainty that several more will be put up during the next twelve months, which will increase the output of pig iron probably to the extent of about 10,000 tons per month. Prices as a general thing remain unchanged, viz:

No. 1 Foundry	14 50	15 50
No. 2 Foundry	13 50	14 00
American Scotch	13 50	14 00
Gray Forge	12 00	13 00
Car-Wheel Iron	23 00	25 00
Ores, Red and Brown	1 50	2 25
Furnace Coke	2 00	2 30
Nails, car-load lots, 30 days	—	—
Bar Iron, per 100 lb.	—	1 75
Old Rails	18 00	19 00
Old Wheels	13 00	—
Wrought Scrap, No. 1	—	70
" " No. 2	—	50
Cotton Tie Clippings	—	—
Cast Scrap	—	—
Railroad Splices	—	1 85
Railroad spikes	—	2 25
Light Steel Rails, long ton	—	—
Barb wire—Cambria link	—	—
Barb wire—four point galvanized	—	—
Barb wire	—	—

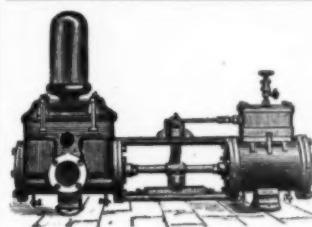
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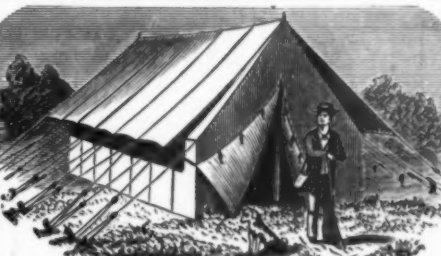
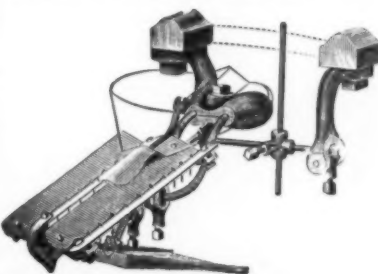
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The Pulverator weighs 4,200 pounds and requires only ten horse power.

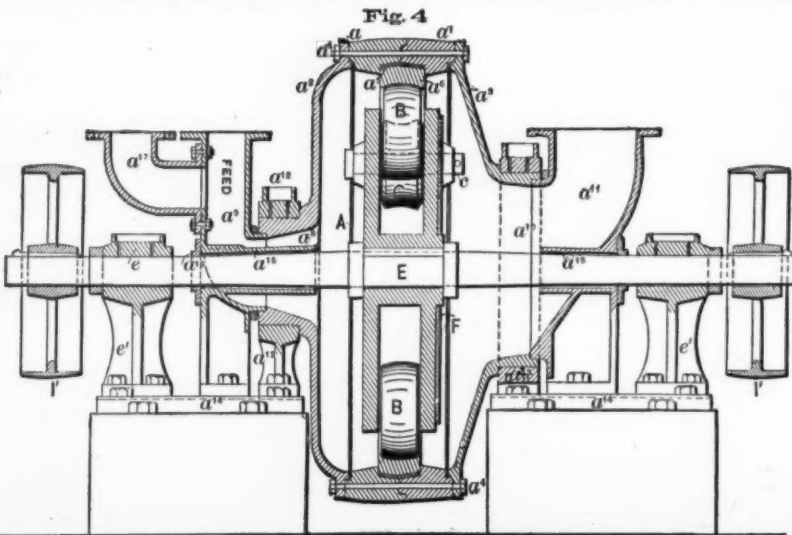
Will give a product of 3,000 pounds an hour, pulverized to 80 or 150 mesh.

The wear comes upon parts easily replaceable and inexpensive.

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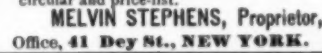
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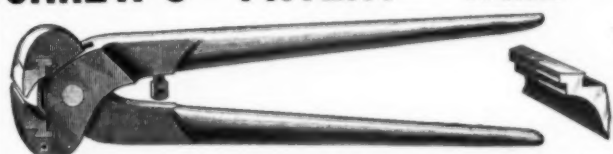
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Per doz., \$0.30 1.00 1.18 1.35 1.50.....	dis 55	10 15
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Barn Door.....	per doz \$1.60,	dis 10
Wrought Chest.....	dis 65	10
Surface Chest.....	dis 55	10
Flush Chest.....	dis 55	10
Lifting.....	dis 50	10
Saw and Plane.....	dis 40	10
Lippincott Cross-Cut Saw.....	20c.	per pair
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Brad Awl.....	per gross, \$3.00,	dis 20
Chisel, all kinds.....	dis 50	10
Auger, assorted, per gross.....	\$4.50	
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Patent Auger, Ives'.....	dis 25	5
Patent Auger, Douglass'.....	per set \$1.25	net
Patent Auger, Swan's.....	per set 1.00	net
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White Mountain, per doz.....	\$36.	
" " Finished in red, per doz.....	\$42.	
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No. 4, per doz. pair.....	\$12.00,	50 & 10 %
" 5, " " ".....	14.40,	50 & 10 %
" 6, " " ".....	18.00,	50 & 10 %
Iron clad track.....	8 cents per foot,	50 & 10 %
Barn door stays.....	\$3.00 per doz.,	50 & 10 %
Barn Door, old patterns.....	dis 60	10
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Climax (Anti-Friction).....	dis 50	5
Warner's.....	dis 20	5
Richard's.....	dis 50	5
Underhill's.....	dis 35	5
Haines' Solid Steel.....	dis 30	5
Shingling, Nos. 1 & 3.....	per doz \$7.25 \$8.00 \$8.75	
Claw, Nos. 1 & 3.....	per doz 7.75 8.50 9.25	
Lathing, Nos. 1 & 3.....	per doz 7.50 8.00 8.50	
Hammond's new list.....	dis 45	5
Blood's.....	dis 35	5
Hunt's.....	dis 30	5
Russel's, low list.....	dis 40	5
Coloos Bench Board Adzes.....	dis 40	5
MAY KNIVES.		
Gem.....	per doz \$13.50	
"Lightning".....	per doz \$20.00	net 5
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HINGES.		
Plate Hinges {8, 10 & 12 in.....	5½c.	per lb.
"Providence" } over 12.....	¾c.	per lb.
Screw Hook {8, 10, 12 in.....	3½c.	per lb.
and Strap. {14 to 36 in.....	2½c.	per lb.
Crown spring.....	for solid doors, dis 60 & 10 %	
for solid door, single action, dis 45 %	for solid doors, double action, dis 55 %	
Crown Screen Door Latch.....	per gross \$12,	dis 50
Crown Christmas-Tree Holders, 2-inch, per doz.....	dis 45	5
doz 3-inch, \$12.....	dis 45	5
Bickford Portable Pump.....	each \$6,	dis 20
American Cake Mixer, No. 6.....	each \$3.50,	dis 20
American Tobacco Cutter.....	per doz \$15,	dis 30
A. M. Co. Clothes Wringer, No. 2 rolls, 10x1½, per doz.....	\$37.50; No. 2½ rolls, 12x1½, \$48.....	dis 20
Heavy Welded Hook {8 @ 12 in. \$7.50 per 100 lb. } dis 14 in. & up, \$6 per 100 lb. } 20 %		
Screw Hook and Eye.....	¾ & 1 in..... 9c. } ¾ in..... 9c. } dis ¾ in..... 10c. } 20 %	
Wrought Strap & T list, Dec. 20, 77.....	dis 65	5
HOBS.		
Planters.....	dis 60	10 & 5 %
Riveted Shank.....	per doz \$5.00,	dis 60
Socket.....	dis 10	5
Grub.....	dis 50	5
Hick's Pat. Solid C. S. Patents.....	dis 60	5
Hick's Pat. Solid C. S. Scovill Pattern.....	dis 60	5
Hubbard, Bakewell & Co.....	dis 60	5
HORSE NAILS.		
Available: Nos. 5 6 7 8 9 10		
Plain, per doz.....	30c 27c 25c 24c 23c 22c.	dis 20
Finish'd "B," per doz.....	31c 28c 26c 25c 24c 23c.	dis 20
Clint'n, P'n, ".....	23c 21c 20c 19c 18c.	dis 20
Clint'n, Fin'd ".....	24c 22c 21c 20c 19c.	dis 20
Gess'n, P'n.....	31c 28c 26c 25c 24c 23c.	dis 20
Putnam.....	27c 24c 22c 21c 20c 19c.	dis 50
Paranac.....	26c 23c 21c 20c 19c 18c.	dis 20
Globe, ".....	26c 23c 21c 20c 19c 18c.	dis 10
"B'n ".....	26c 23c 21c 20c 19c 18c.	dis 10
Chaplain.....	26c 23c 21c 20c 19c 18c.	dis 10
Forged "B.....	31c 28c 26c 25c 24c 23c.	dis 20
C. C. ".....	28 25 23 22 21 21.	dis 10
"B.....	28c 25c 23c 22c 21c 21c.	dis 10
Bridgeware.....	28c 25c 23c 22c 21c 20c.	dis 30
New Haven.....	31c 28c 26c 25c 24c 23c.	dis 30
Apewell.....	31c 28c 26c 25c 24c 23c.	dis 20
HORSE SHOES.		
Curden.....	per keg \$3.85	
I. Horse Shoe Co., Perkin's Improved, Light, Medium and Heavy.....	per keg \$3.87½	
Shoe Shoes.....	per keg \$4.87½	
Walker's—Forged: (Light, Medium and Heavy.).....	per keg \$3.75½	
Horse.....	per keg \$3.75½	
Mule.....	per keg \$4.72½	
Forg'd For'd Heel & Toe Horse Shoes.....	\$4.75 per kg.	
" " Plain " " ".....	\$4.75 " "	
" " Frog " " ".....	\$5.00 " "	
" " Pressure " " ".....	\$5.75 " "	
" " Heel & Toe Mule " " ".....	\$5.75 " "	
Ryden Steel Mule Shoes, \$6.75 per keg.....	dis	5
diamond State Horse Shoes.....	\$3.85	per keg
diamond State Mule Shoes.....	\$4.85	per keg
henix Light, Medium and Heavy Horse Shoes.....	\$3.87½	per keg
henix Mule Shoes.....	\$4.87½	per keg
x Shoes—Mt. Carmel O. Shoes.....	10 cts.	per lb.
ICE CREAM FREEZERS.		
Peerless—3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7.8 quart, \$9; 10 quart, \$12. The Gooch Patent "Giant"—14 quart, \$20; 18 quart, \$25; 21 quart, \$30; 25 quart, \$35; 32 quart, \$40; 42 quart, \$45. Discount 50 %.....		
American—2 quart, \$2.75; 3 quart, \$3.25; 4 quart, \$3.75; 6 quart, \$5 each.....	dis 45	5
rown, single action, 2 quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.00; 6 quart, \$7; 8 quart, \$9; 10 quart, \$11; 14 quart, \$14.....	dis 45	5
rown, double action, with crank, 8 quart, \$10.50; 10 quart, \$13; 14 quart, \$16.50; 18 quart, \$21; 24 quart, \$25. With fly wheel, 8 quart, \$13; 10 quart, \$16; 14 quart, \$20; 18 quart, \$25; 24 quart, \$30; 32 quart, \$37.50.....	dis 45	5
rown, double action, 2 quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.00; 6 quart, \$7; 8 quart, \$9; 10 quart, \$11; 14 quart, \$14.....	dis 45	5
rown, double action, 2 quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.00; 6 quart, \$7; 8 quart, \$9; 10 quart, \$11; 14 quart, \$14.....	dis 55	5
rown Ice Chopper.....	per doz \$7.50,	dis 35
KNOBES.		
Marriage, (Ja'd'd \$0 c per gross).....	dis 60	10
—Common.....	dis 30	10
emacate Door Knobs.....	new list, dis 35	5

**Springfield, - Mass.**



Door Mineral.....	Same discounts as Door Locks.
Door Por. Jap'd.....	
Door Por. Plated.....	
Furniture Plain.....	75c gross inch, dis 10
Furniture, Wood Screws.....	dis 20
Picture.....	dis 20
Hemacite, Picture.....	dis 35
Shutter, Porcelain.....	dis 50
Melting & Skim'ng, Monroe's Pat. No. 4.....	dis 40
Melting, C & C.....	dis 20
LAWN MOWERS.	
Acme Buckeye, Easy & Excelsior, new list.....	dis 40
Wires.....	dis 25
Wires, Galvanized, 100 feet.....	dis 30
LOCKS AND LATCHES.	
Cabinet, Eagle.....	Changes made in list price
Cabinet, Gaylord.....	of some numbers Jan. 1,
Cabinet, Bridgeport.....	1881, dis 25
Cabinet, P. & F. Corbin.....	dis 40
Trunk, new list, Jan. 1, 1881.....	dis 15
Yale Lock Co., Flat Key.....	dis 40
Plate.....	dis 35
DOOR LOCKS, ETC.	
Bradford.....	
Norwalk.....	
Norwich.....	
P. & F. Corbin.....	
Russell & Erwin.....	
Mallory, Wheeler & Co.....	
Nimick & Brittan Mfg. Co.....	
Padlocks—Russell & Erwin.....	
Mallory, Wheeler & Co.....	
Norwalk Lock Manf. Co.....	
Wm. Wilcox & Co.....	
Nimick & Brittan Mfg. Co.....	
Wm. Wilcox & Co's Plate Locks.....	
Yale Lock Manf. Co's "Standard".....	
Romer's.....	
Conestoga.....	
Scandinavian, "Norwich".....	
Nimick & Brittan's Burglar-Proof Locks.....	
MALLETS.	
Penfield Block Co., Apple, Hickory and	
Lignumvite.....	
MEAT CUTTERS.	
Dixon's (P. S. & W.) Nos. 1, 2, 3, 4.....	
Perry's, Nos. 1, 2, 3, 4.....	
Each.....	
Woodruff's (P. S. & W.) Nos. 100, 150.....	
Haes's.....	
Kieser's No. 55.....	
Kieser's No. 55.....	
Kieser's No. 82.....	
Kieser's Monarch.....	
Beef Shaver, (Enterprise Manf. Co.).....	
MOLASSES GATES.	
Stebbins Patterns.....	
Stebbins Genuine.....	
Stebbins Tinned Ends.....	
Chase's Hard Metal.....	
Self-Measuring, (Enterprise).....	
Lincoln's Pattern.....	
Weed's.....	
Boss Nos. 1, 2, 3, 4.....	
Boss, Japanned Finish.....	
Boss, Bronze Finish.....	
NUTS AND WASHERS.	
Square Nuts.....	
Hexagon Nuts.....	
Washers.....	
Zinc and Tin.....	
Brass and Copper.....	
Malleable (Hammer's).....	
PINKING IRONS.	
Per dozen.....	
ASTOR PLATING MACHINES.	
Astor Plating Machine.....	
Crown Plating Machine.....	
6 in., 8 in., 10 in., 12 in. each.....	
PLANES AND PLANE IRONS.	
Bench, First Quality.....	
Bench, Second Quality.....	
Molding.....	
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879.....	
The Stanley (S. R. & L. Co.) new list, January 1879.....	
Bailey's.....	
Plane Irons, Butcher's.....	
Plane Irons, Auburn Tool Co.....	
Plane Iron, Ohio Tool Co.....	
Plane Irons, Sandusky Tool Co.....	
FLIERS AND NIPPERS.	
Buton's Patent.....	
Hall's Pat. Compound Lever Cutting Nippers, No. 2, 5 in. \$13.50; No. 4, 7 in. \$21 doz., dis 25	
Gas Pliers.....	
Cronk's Patent Cutting Pliers: 8 inch \$15.00; 10 inch \$21.00.....	
PLUMBERS AND LEVELS.	
Stanley R. & L. Co.'s Pat. Adjustable.....	
Stanley R. & L. Co.'s Non-Adjustable.....	
Chapin's Patent Adjustable.....	
Chapin's Non-adjustable.....	
Standard Rule Co.'s New Adjustable.....	
Standard Rule Co.'s Non-Adjustable.....	
Pocket Levels.....	
RAIL.	
Sliding Door, Wrought Brass.....	
Sliding Door, Bronze Wrt. Iron.....	
Sliding Door, Iron, Painted.....	
Bara Door.....	
Per 100 feet.....	
B. D. for N. E. Hangers—Small. Med. Large.....	
Per 100 feet.....	
RIVETS.	
Iron and Tinned, new list, Dec. 10, 1881.....	
In bulk, new list, Dec. 10, 1881.....	
Copper Rivets and Burrs.....	
Nos. 7 8 9 10 11 12 13 14 15.....	
Rivet sets.....	
Stair, Brass.....	
Stair, Black Walnut.....	
RULES.	
Boxwood. Ivory.	
Chapin's.....	
Standard.....	
Stanley.....	
Stevens & Co.....	
Stevens & Co. Miscellaneous.....	
SAD IRONS.	
Self-Heating, Charcoal.....	
Mrs. Pott's Irons.....	
Enterprise Star Irons, new list, July 20, '81.....	
Comb'd Fluter and Sad Iron.....	
Common Sad Irons.....	
SAND PAPER.	
Baeder & Adamson's Flint, 000 1/2, \$4.50 r'm.....	
Baeder & Adamson's Flint, 000 3/4, \$5.00 r'm.....	
Baeder & Adamson's Flint, Assort'd 4.75 r'm.....	
Baeder & Adamson's Star.....	
Baeder & Adamson's Emery r'm \$6.50 11.50.....	
Bartle's Sand, Flint and Emery Paper.....	

Clancy's No. 100, per gross.....	dis 20
Nimick & Brittan Mfg. Co.....	dis 50
SASH LOCK.	
Common.....	dis 14c net
Patent.....	dis 17c net
Silver Braided Lake Hemp.....	dis 10c
Silver Braid, Lake White Cotton.....	dis 10c
Silver Braided Lake Drab Cotton.....	dis 10c
Silver Lake Cable Laid, Bengall Unbleached Hemp, 17 cts.....	dis 10c
Russian Hemp, 19 cts.....	dis 10c
Italian Hemp, 34 cts.....	dis 10c
Samsen Braided, white cotton.....	dis 30c
drab cotton.....	dis 30c
SASH WEIGHTS.	
Solid Eyes, in 500-lb. lots and over, 1 1/2 c. net.....	
SAUSAGE STUFFERS OR FILLERS.	
Wiles.....	dis 25
Enterprise Mfg. Co.....	dis 30
Monarch.....	dis 40
SAWS.	
Boynton's Lightning Cross Cuts, new list.....	dis 40
Boynton's Circular and Mill.....	dis 40
Boynton's Ice.....	dis 25
Boynton's Lightning Hand, Panel and Rip.....	dis 25
Disston's Circular.....	dis 40
Disston's Mill.....	dis 40
Disston's Cross Cut.....	dis 40
Disston's Hand, Panel, Rip, &c.....	dis 20
Hubbard, Bakewell & Co. Circular Saws.....	dis 30
Hubbard, Bakewell & Co. Cross Cut.....	dis 30
Hubbard, Bakewell & Co. One-Man's, X Cut.....	dis 40
Hubbard, Bakewell & Co., Mill Saws.....	dis 40
Peace Circular and Mill.....	dis 40
Peace Hand, Panel and Rip.....	dis 25
Peace Cross Cuts.....	dis 35
Peace Hand Saws, all widths.....	dis 10
Webster Cross Cut, with handles.....	dis 25
Griffin's Hack Saws and Blades.....	dis 30
SAW FRAMES.	
White.....	dis 10
Saw Rods.....	dis 10
SAW SETS.	
Stillman's Genuine.....	dis 10
Stillman's Imitation.....	dis 10
Common Lever.....	dis 10
Leach's.....	dis 15
Hammer, Hotchkiss.....	dis 10
Aiken's Genuine.....	dis 10
Aiken's Imitation.....	dis 10
Disston's.....	dis 10
Morrill's.....	dis 10
SCALES.	
Hatch, Counter, No. 171.....	dis 10
Hatch, Tea, No. 161.....	dis 10
Union Platform, Keystone.....	dis 10
Chicago Scale Co.....	dis 10
Fairbanks.....	dis 10
Forsyth Scale Co.....	dis 10
Howe's.....	dis 10
Chatillon's Grecks.....	dis 10
Chatillon's Eureka.....	dis 10
Family Universal.....	dis 10
Family Favorit.....	dis 10
Family Turnbull's.....	dis 10
Scale Beams, List of Jan. 12, 1882.....	dis 10
SCRAPERS.	
Adjust. Box Scraper (S. R. & L. Co.) \$6.50, dis 20	
Box, 1 Handle.....	dis 10
Box, 2 Handle.....	dis 10
Foot.....	dis 10
Ship, common.....	dis 10
Wilson Mfg. Co.....	dis 10
SCREW DRIVERS.	
Douglas Mfg. Co.....	dis 10
Disston's.....	dis 10
Cowles Mfg. Co.....	dis 10
Stanley Rule & Level Co.'s Var. Hdl's.....	dis 10
Stanley Rule & Level Co.'s Black Hdl's.....	dis 10
Ratchet.....	dis 10
Clark's Patent.....	dis 10
Shepardson.....	dis 10
SCREWS.	
Standard new list, Feb. 15.	
Flat Head Bright.....	dis 10
Round Head Blue.....	dis 10
Flat Head Brass.....	dis 10
Round Head Brass.....	dis 10
Flat Head Blue (add 2 1/2 % to net).....	dis 10
Brass and Silver Capped.....	dis 10
Japanned Flat Head.....	dis 10
Coach, Patent Gimlet Point.....	dis 10
Coach, Common or Lag.....	dis 10
Machine, Flat Head, Iron.....	dis 10
Machine, Round Head, Iron.....	dis 10
Bench, Iron.....	dis 10
Bench, Wood, Beach.....	dis 10
Bench, Wood, Hickory.....	dis 10
Hand, Wood.....	dis 10
Hand Rail, Sargent's.....	dis 10
Hand Rail, Humason, Beckley & Co.'s.....	dis 10
Hand Rail, Am. Screw Co., list Jan. 1, '81.....	dis 10
Jack (Wilson's).....	dis 10
SCREEN FRAMES AND FIXTURES.	
Standard Window Screens No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.....	
Door.....	dis 10
Window Corner Irons.....	dis 10
Door.....	dis 10
Door Latches.....	dis 10
Porter's Patent Window and Door Screen Frames.....	dis 10
PER DOZ. SETS.	
In Im. Bl'k.....	dis 10
White.....	dis 10
No. 20.....	dis 10
No. 21.....	dis 10
No. 22.....	dis 10
No. 23.....	dis 10
No. 24.....	dis 10
No. 25.....	dis 10
No. 26.....	dis 10
No. 27.....	dis 10
No. 28.....	dis 10
No. 29.....	dis 10
No. 30.....	dis 10
No. 31.....	dis 10
No. 32.....	dis 10
No. 33.....	dis 10
No. 34.....	dis 10
No. 35.....	dis 10
No. 36.....	dis 10
No. 37.....	dis 10
No. 38.....	dis 10
No. 39.....	dis 10
No. 40.....	dis 10
No. 41.....	dis 10
No. 42.....	dis 10
No. 43.....	dis 10
No. 44.....	dis 10
No. 45.....	dis 10
No. 46.....	dis 10
No. 47.....	dis 10
No. 48.....	dis 10
No. 49.....	dis 10
No. 50.....	dis 10
No. 51.....	dis 10
No. 52.....	dis 10
No. 53.....	dis 10
No. 54.....	dis 10
No. 55.....	dis 10
No. 56.....	dis 10
No. 57.....	dis 10
No. 58.....	dis 10
No. 59.....	dis 10
No. 60.....	dis 10
No. 61.....	dis 10
No. 62.....	dis 10
No. 63.....	dis 10
No. 64.....	dis 10
No. 65.....	dis 10
No. 66.....	dis 10
No. 67.....	dis 10
No. 68.....	dis 10
No. 69.....	dis 10
No. 70.....	dis 10
No. 71.....	dis 10
No. 72.....	dis 10
No. 73.....	dis 10
No. 74.....	dis 10
No. 75.....	dis 10
No. 76.....	dis 10
No. 77.....	dis 10
No. 78.....	dis 10
No. 79.....	dis 10
No. 80.....	dis 10
No. 81.....	dis 10
No. 82.....	dis 10
No. 83.....	dis 10
No. 84.....	dis 10
No. 85.....	dis 10
No. 86.....	dis 10
No. 87.....	dis 10
No. 88.....	dis 10
No. 89.....	dis 10
No. 90.....	dis 10
No. 91.....	dis 10
No. 92.....	dis 10
No. 93.....	dis 10
No. 94.....	dis 10
No. 95.....	dis 10
No. 96.....	dis 10
No. 97.....	dis 10
No. 98.....	dis 10
No. 99.....	dis 10
No. 100.....	dis 10

## St. Louis Iron Market.

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There is a little more inquiry from the general foundry trade, and the machine shops report more or less business in sight. We quote cash f. o. b. St. Louis:

HOT-BLAST CHARCOAL.	
Missouri.....	\$17 00@18 50
Southern.....	17 50@18 50
Ohio.....	—
COKE AND COAL.	
Missouri.....	—
Southern No. 1.....	18 25@18 75
Southern No. 2.....	17 25@17 75
Southern No. 3.....	—
Ohio Softeners.....	17 00@20 00
MILL IRONS.	
Missouri.....	16 00@17 00
Southern.....	15 00@16 00
CAR-WHEEL AND MALLEABLE IRON.	
Southern.....	20 00@25 00
Lake Superior.....	21 00@23 00
MISCELLANEOUS.	
Old Wheels.....	15 00@16 50
Old Rails.....	—
Connellsville Coke, East St. Louis.....	— @ 5 65

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JOHN T. COLEMAN & SONS,  
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Have been levied from 1881 to 1886, averaging three a year, and making the cost for assessments to a man of 40 years less than five dollars a year for each \$1,000 of insurance.

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Remunerative employment offered to energetic and reliable men.

## METAL-WORKING MACHINERY

New and Second Hand, on Hand.

12 in. S. x 5 ft. Engine Lathes.  
15 in. S. x 6 ft. Engine Lathes, Lathe & Morse.  
16 in. S. x 6 ft. Engine Lathes, Harrington & Ames.  
17 in. S. x 7 ft. Engine Lathes, Hewes & Phillips.  
18 in. S. x 8 ft. Engine Lathes, New Haven.  
20 in. S. x 8, 10 & 14 ft. Engine Lathes, Harris & Ames.  
24 in. S. x 14 & 20 ft. Engine Lathes, Ames.  
25 in. S. 10 ft. Engine Lathes.  
26 in. S. x 16 ft. Engine Lathes, Perkins.  
41 in. S. x 18 ft. Engine Lathes, Putnam.  
50 in. In Gap Extension Bed Engine Lathes, Box.  
12 in. Stroke Shapers, New Haven & Eungst.  
15 in. Stroke Shapers, Wolcott & Eberhardt.  
20 in. Stroke Shapers, Eberhardt.  
24 in. Stroke Shapers, Bridgeport.  
20 in. x 20 in. x 4 ft. Planer, New Haven.  
20 in. x 20 in. x 6 ft. Planer, Whitcomb.  
20 in. x 20 in. x 6 ft. Planer, Pratt & Whitney.  
22 in. x 22 in. x 4 ft. Planer, Powell.  
22 in. x 22 in. x 5 ft. Planer, Ames.  
24 in. x 24 in. x 4 ft. Planer, Ferris & Miles.  
24 in. x 24 in. x 6 ft. Planer, Powell.  
26 in. x 26 in. x 7 ft. Planer, Ames.  
26 in. x 26 in. x 6 ft. Planer, Powell.  
30 in. x 30 in. x 6 ft. Planer, Putnam.  
20 in. Swing Drill, Prentice.  
25 in. Swing Drill, Blaisdell.  
28 in. Swing Drill, Blaisdell.  
3 and 4 Spindle Drill, Garvin.  
Brown & Sharpe Universal Miller.  
Plain Miller, Lincoln Pattern.  
No. 3 Miller, Garvin.  
No. 5 Miller, Brainerd.  
2 1/2 in. Cutting-off Machine, Pratt & Whitney.  
No. 2—3/4—4 Stiles Punch Presses.  
Also a line of New Tools all kinds. We are always glad to correspond, and if parties desiring to purchase will write, stating just what they want, we will be glad to name prices on either new or second hand.

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**SHREAVES.**  
Sliding Door, M. W. & Co., List.....dis 45¢  
Sliding Door, R. & E. list.....dis 60¢  
Sliding Door, Patent Roller.....dis 60¢  
Sliding Door, Pt. Roller, Hatfield's.....dis 60¢  
Sliding Door, Russell's Anti-Friction.....dis 60¢  
Also see Hangers.

**SHOVELS AND SPADERS.**  
Ames, New List, July 1, 1887.....dis 15¢  
Griffiths.....dis 50¢  
Remington's (Lowman's Patent).....dis 30¢  
Rowland's.....dis 60¢  
Kimball's.....dis 35¢  
Lippincott, new list.....dis 20¢  
Hussy, Bins & Co.....dis 15¢

**SPOKE TRIMMERS.**  
Bonney's.....dis 10¢  
Ives'.....dis 10¢  
Douglas'.....dis 15¢

**SILVER PLATED WARE.**  
Wm. Rogers Manf. Co.....dis 50¢  
Holmes, Booth & Hayden.....dis 40¢  
Brown Bros.....dis 40¢  
Wallace's Steel Silver Plated.....dis 33¢  
Rogers Bros 1847.....dis 50¢  
C. Rogers & Bro.....dis 40¢

**SILVER PLATED HOLLOW WARE.**  
Wm. Rogers Manf. Co.....dis 40¢  
Meriden Britannia Co.....dis 33¢

**SOLDERING IRONS AND COPPERS.**  
Covert's Soldering Irons.....dis 35¢  
Covert's Adjustable Coppers.....dis 35¢

**SPOONS.**  
Britannia.....dis 60¢  
Tinned, Iron, Table and Tea.....dis 65¢  
Tinned Iron Basting.....dis 65¢  
German Silver.....dis 40¢

**STONE.**  
Hindustan No. 1, 5c; Axe, 8c.....net  
Sand Stone.....dis 10¢  
Washita Stone.....dis 10¢  
Washita Stone, Slips.....dis 10¢  
Arkansas.....dis 10¢

**SQUARES.**  
Steel.....dis 60¢  
Iron.....dis 60¢  
Nickel Plated.....dis 60¢  
Try Square and T Bevels.....dis 50¢  
Disston's Try Square and T Bevels.....dis 40¢

**TACKS, BRADS, AC.**  
[Less 10¢ for cash if paid by 6th of month following sale.]

American Iron Carpet Tacks, all kinds.....65¢  
Steel Carpet Tacks, all kinds.....60¢  
Swedes Iron Carpet Tacks, all kinds.....60¢  
Swedes Iron Upholsterers' Tacks.....60¢  
Tinned Swedes Iron Tacks.....60¢  
Tinned Swedes Iron Upholsterers' Tacks.....60¢  
American Iron Cut Tacks.....55¢  
Gimp and Lace Tacks.....50¢  
Tinned Gimp and Lace Tacks.....50¢  
Copper Tacks.....50¢  
Copper Finishing and Trunk Nails.....50¢  
Cigar Box Nails.....50¢  
Finishing Nails.....50¢  
Trunk and Clout Nails.....50¢  
Tinned Trunk and Clout Nails.....50¢  
Basket Nails.....50¢  
Chair Nails.....50¢  
Zinc Glaciers' Points.....45¢  
Common and Patent Brads.....45¢  
Hungarian Nails and Miners' Tacks.....45¢  
Tinned Capped Trunk Nails.....30¢  
Looking Glass Tacks.....25¢  
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Peerless, with Cogs, No. 2½.....dis 45¢  
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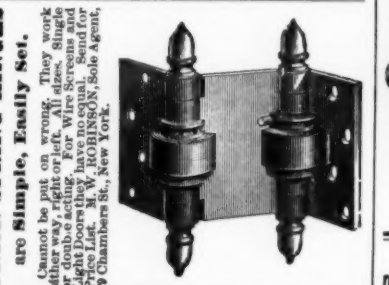
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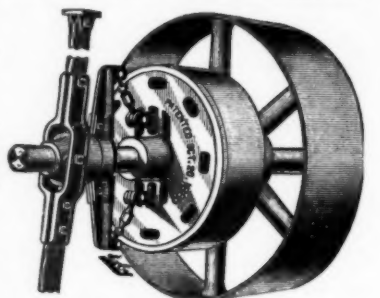
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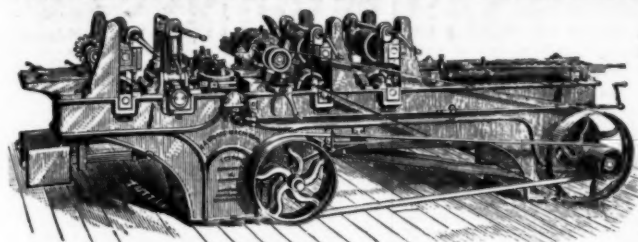
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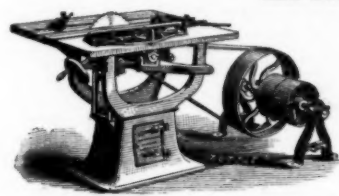




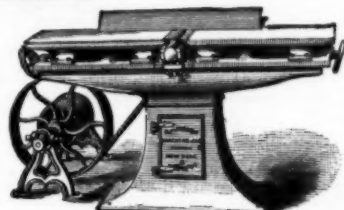
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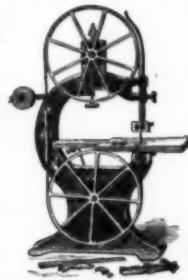
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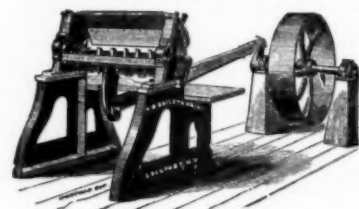
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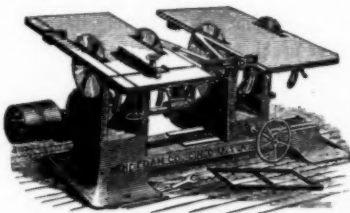
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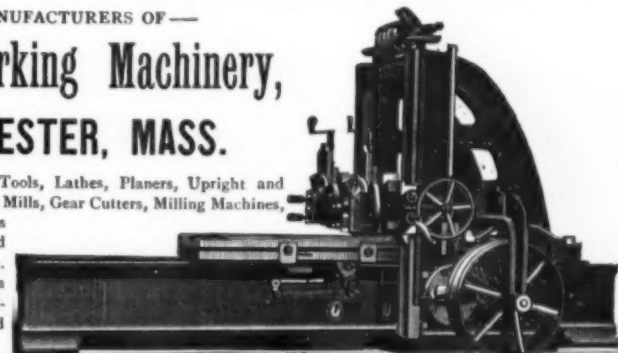
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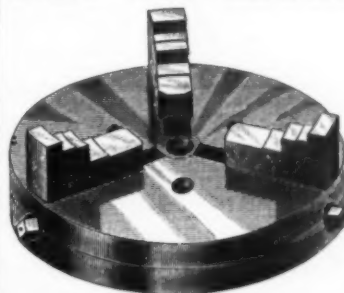
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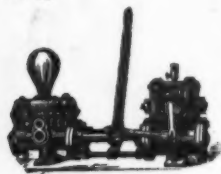
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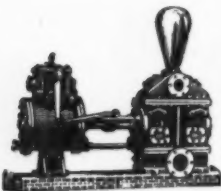
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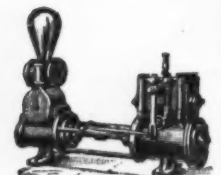
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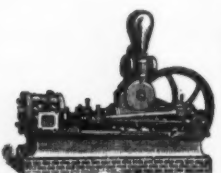
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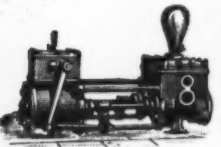
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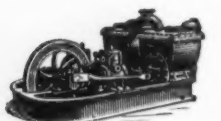
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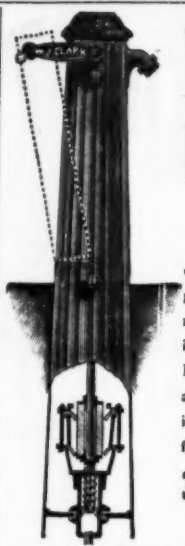
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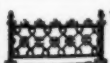
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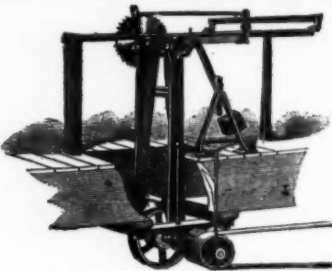
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**WANTED.**—A practical paper manufacturer with some capital, to assist in running a paper mill for working refuse sugar cane fibre. Mill is erected and in running order, on a large sugar plantation on railroad and river in Louisiana. Address K, Box 3,330, New Orleans, La.

**FOR SALE.**—1 Ring Twister, 8 Patent Twisters with spools, shafting, pulleys and belting, for making patent seine twine from 9 to 36 thread. Part of the machinery run less than two months. Will be sold for half its value. Address, Gillette Twine Co., Mount Verd, Tenn.

**SITE FOR COTTON MILL.**—90 acres of land just outside corporate limits of Atlanta, well drained, has water facilities for steam, lies alongside of railroad. Charter obtained; owners will place a fair valuation on the land, taking stock for same. Parties contemplating building cotton mill, address James W. Harle, Atlanta, Ga.

**FOR SALE.**—Two fine shad and herring fisheries on Chowan river, also two thousand acres of land, mostly well-timbered, in connection with the place. For information, address J. M. Hays, M. D., Barnitz, Chowan county, care of J. T. Patrick, Raleigh, N. C.

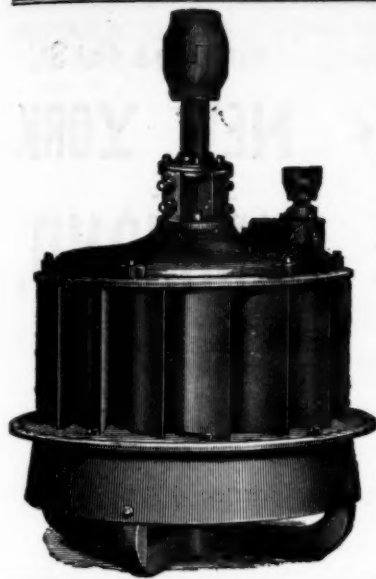
**WANTED.**—A partner with \$2,000 capital in a handle factory, now established with good trade; have a good water power. Timber very cheap and location good. Address G. W. Simpson, Salisbury Furnace, Botetourt county, Va.

**A GREAT BARGAIN** is offered to close out a smoking tobacco factory, well equipped, extensively advertised, with the brand of goods popularly known and handled by a large trade throughout the Southern States. Apply to F. B. Alexander, Hickory, N. C.

**GOLD MINE FOR SALE OR LEASE.**—For particulars and quality of gold, address D. F. Richie, Porcelain, care of J. T. Patrick, Raleigh, N. C.

THE mining country of North Carolina, which has attracted so much attention among capitalists and is becoming more conspicuous every day on account of its proven value, has been the entering wedge to open up other important enterprises, amongst which is that of a railroad. A charter has recently been obtained from the States of North Carolina and Virginia for the construction of the Durham, Blue Wing & Clarksville Railroad. This railroad will penetrate and open up a comparatively heretofore undeveloped rich section of the State. It may be of import to our readers to know that some of the projectors of this railroad are from Harrisburg, and the majority of them from the State of Pennsylvania. This railroad runs for a distance of 300 miles through and along the richest mineral deposits in that State. Along this belt a number of Harrisburg people have largely invested. "The Big American Reduction Company" has a large interest along this line and are in active operation. This company has been estimated by competent mineralogists to have one of the largest copper mines in North America, their ores yielding by actual working and assays from 30 to 40 per cent. The ore deposit in the mines of this company has been estimated at \$60,000,000, and over \$500,000 of high grade ore is sufficiently developed and surrounded that only the process of mining and smelting is necessary to reduce it to the metal itself. The gold-bearing country that will be opened up by the Durham, Blue Wing & Clarksville Railroad is of equal importance and independent of these all. The railroad will also pass through a portion of the greatest tobacco producing district in Durham county, North Carolina, and through the center of a timber forest second to none in the country. The timber along this line of railroad at its market value would yield sufficient to build a railroad from the Atlantic to the Pacific coast. Along the line of this railroad and near the mines a site for a city has been selected and surveyors are now on the ground to complete the plot.—Harrisburg (Pa.) Morning Call.





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30-inch,	11.65	52.54	.8076

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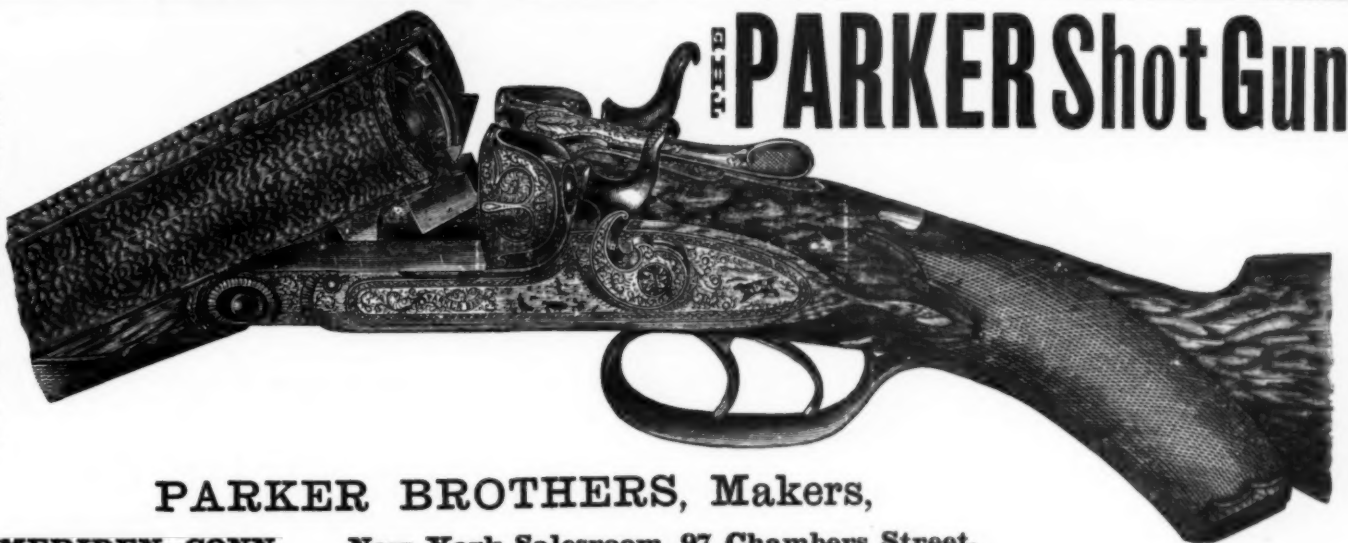


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Report of the International Gun Trial, held at Bergen Point, N. J., April 3, 1884. Extract from *Turf, Field and Farm* reporting the same: "The Parker Gun, our prominent home manufacture, won the admiration of all by its fine shooting qualities. It registered in both the 10 and 12-bore classes; the greatest number of pellets in the 30-inch circle, and therefore must be awarded the palm for pattern."



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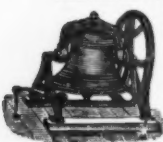
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My 1 1/4 Point is 24 1/2 in. long and has  
24 1/4 by 1/8 openings.

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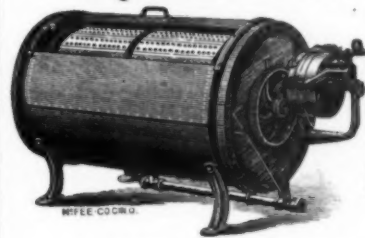
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# THE HERCULES WATER WHEEL.

*In the Manufacturers' Record of April 24 was published a list of parties in Maine who had at different times bought HERCULES WATER WHEELS. The following inquiry was addressed to each one of them: "Please give the result of your experience with the HERCULES WATER WHEEL." Every answer received is given below:*

*From the Barker Mills, Auburn, Me.:* "We have used since 1879 one 39-inch Hercules Water Wheel under 32 feet fall. It has driven 21,776 spindles with little spare gate, with 432 looms. It has made us no trouble and cost us nothing for repairs, and is a remarkable wheel for disposing of sawdust, chips and shavings, a large amount of which comes down our stream. We are highly satisfied with the wheel in all respects."

*From Mousam Manufacturing Co., Kennebunk, Me.:* "We have three of the Hercules Wheels in use, and like them much better than any wheel we have ever used. They seem to accomplish all we expected, and do not clog or get out of order. We should use them in preference to any wheel we know of if we were to put in more."

*From W. T. Pearson & Co., Bangor, Me.:* "We have several of the Hercules Water Wheels in our mill, and they give perfect satisfaction in every respect. We have tried most all kinds of wheels, but have never found any that will equal the Hercules Wheel. We can get a better result with same head water than any other wheel."

*From Forest Paper Co., Yarmouthville, Me.:* "We have used Hercules Wheel since the fall of 1882. The wheel does our work to our satisfaction. We have never made any repair, nor have we had occasion to change the step. It runs 24 hours a day. We can heartily recommend them."

*From R. W. Lord & Co., Kennebunk, Me.:* "The Hercules Water Wheel which we have been running for the past three years has proved all that it was represented and has given us perfect satisfaction."

*From the Lewiston Mills, Lewiston, Me.:* "We have in use two Hercules Wheels made by the Holyoke Machine Co., and they are and have been for four years giving entire satisfaction."

*From Somerset Fibre Co., Waterville, Me.:* "The Hercules Wheel we are using has given us entire satisfaction."

*From Cumberland & Presumpscot Mills, Cumberland Mills, Me.:* "We are well satisfied with the working of the Hercules Wheel. Should we need more wheels, would put in the Hercules without asking any further questions of other makers."

*From Lincoln Pulp & Paper Co., Lincoln, Me.:* "We are using two of the Hercules Wheels since starting our mill, some three years ago, and they exceed our expectations, giving the best result. With years of experience, we have found them to be the best ever used, and do recommend them to parties wishing a good wheel."

*From Kennebec Fibre Co., Waterville, Me.:* "We are using nine 24-inch Hercules Wheels under a head of 28 feet. We are so well pleased with them that we should buy the same kind if we needed more."

*From Pepperill Manufacturing Co., Biddeford, Me.:* "It is working satisfactorily."

*From Androscoggin Pulp Co., Portland, Me.:* "We are using in our mill five 48-inch Hercules Wheels very satisfactorily. They are a strongly built and powerful wheel, and we think economical in the use of water in proportion to water used."

*From Penobscot Chemical Fibre Co., Bangor, Me.:* "The Hercules Wheels we have here are running well and to our satisfaction."

*From Bates Manufacturing Co., Lewiston, Me.:* "We are using four of the Hercules Wheels. Three of them were put in in the summer of 1882, the other one longer ago. They give perfect satisfaction, and there has never been one dollar laid out on them for repairs."

*From W. K. Shurtleff & Co., Skowhegan, Me.:* "We have four 36-inch Hercules Water Wheels in use; they have been running since November 24, 1884."

*From Worumbo Manufacturing Co., Lisbon Falls, Me.:* "We have the Hercules Wheels made by the Holyoke Machine Co., of Holyoke, Mass., and they give us entire satisfaction."

*From Hollingsworth & Whitney Co., Gardiner, Me.:* "We have in use at our mills here two 36-inch and one 42-inch Hercules Wheels, all of which are running to our satisfaction and giving good results. We think of adding another 42-inch wheel this summer, which goes to show that we are satisfied with them."

*From Davis Shoe Co., Kennebunk, Me.:* "We have a Hercules Wheel in use in our factory here, put in by the Holyoke Machine Co. a short while ago. It has given us entire satisfaction, proving all it was represented to be, and, without doubt, gives a higher percentage of power from the water used than other wheels. Since putting it in we have never had a moment's trouble with it."

*From S. F. Abbott, Agent Lockwood Co., Waterville, Me.:* "The Lockwood Co. are running seven water wheels. Four of them are 51-inch Hercules, made by the Holyoke Machine Co. I like them better than any we have, and think they are an economical wheel and not liable to get out of order."

*From H. W. Golder, Belgrade Mills, Me.:* "I have used water wheels of various makes for about 25 years and never found anything so satisfactory as the 'Hercules.' It gives a larger per cent. of effective power at all stages of gate and is more efficient in every way than any wheel I ever saw. In fact, it is the wheel *par excellence* and beats the world, and is the wheel I would recommend above all others."

*From Denison Paper Manufacturing Co., Mechanic Falls, Me.:* "We have three running, and have 22 water wheels in full blast. We believe the Hercules the best wheel (water) in existence to-day, everything considered."

*From A. F. Merrill & Co., E. Eddington, Me.:* "We have a Hercules Water Wheel in use in one of our mills, and are well satisfied with it; think it does all the makers claim for it."

*From Cabot Manufacturing Co., Brunswick, Me.:* "We have used the Hercules Water Wheel for about five years, and it has given good satisfaction."

*From Dunn Edge Tool Co., Oakland, Me.:* "We have in constant use three Hercules Water Wheels and they give us entire satisfaction. For most purposes we consider the Hercules the best water motor made in this country."

*From Alvin Record, Livermore Falls Pulp Co., Livermore Falls, Me.:* "I am using seven of the Hercules Water Wheels, one 27-inch and one 33-inch. I am also using three other kinds—very good ones—but have just ordered another 36-inch Hercules Wheel; and if I could have others given me, I should not use them; had rather pay for the Hercules; they are far ahead of any wheels that I have ever seen. I think they will give better results than are claimed for them."

*From S. A. Eames, North Newry, Me.:* "I have used the Hercules Water Wheel two years and it gives perfect satisfaction. It has been ready to run any time and without any expense so far. I am now putting in a rotary saw. I don't think the Hercules can be beat for power. I have been running an up-and-down saw with the wheel and a shingle machine, and I can use only part gate."

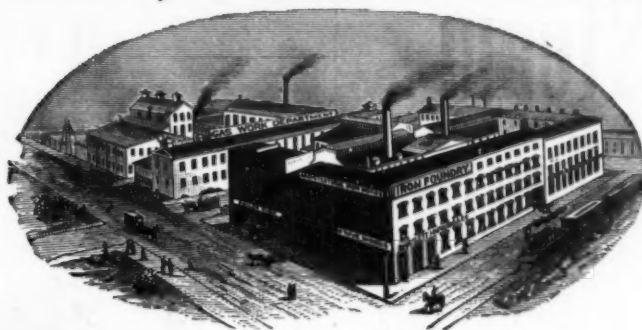
*From Westbrook Manufacturing Co., Saccarappa, Me.:* "We have in use one 48-inch Hercules Wheel under 12-foot head, which is driving 504 Crompton 4 and 6-box gingham looms and all the machinery in dressing room of the same mill. It gives us very even speed. We have a surplus of power, using only five-eighths gate. It runs to our entire satisfaction."



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COCHRAN & LANE.

Bellefontaine, Ohio, Nov. 13, 1884.

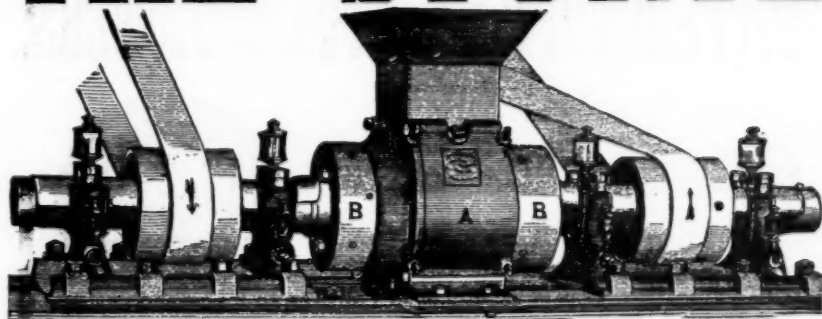
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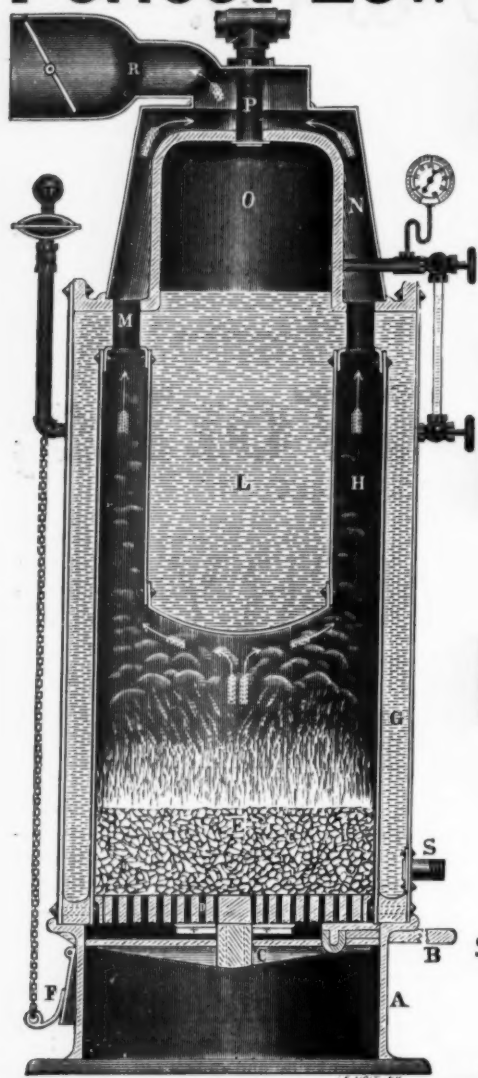
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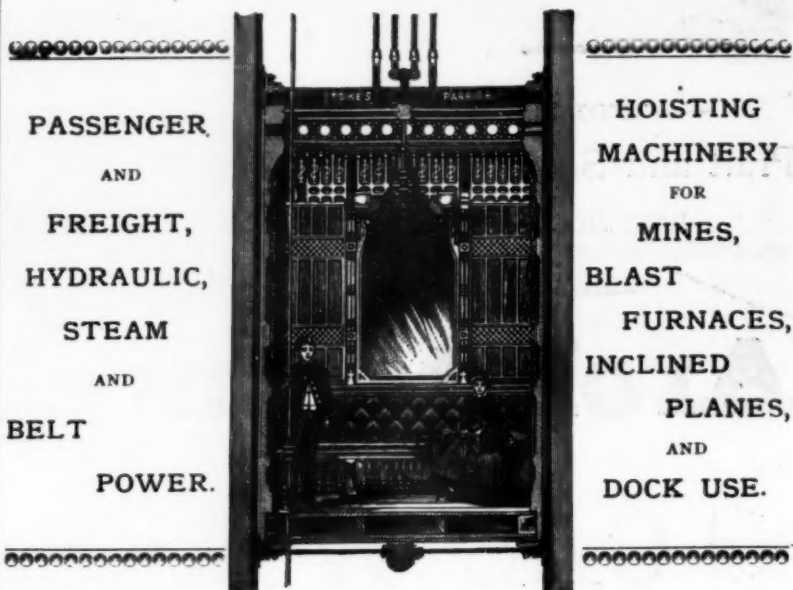
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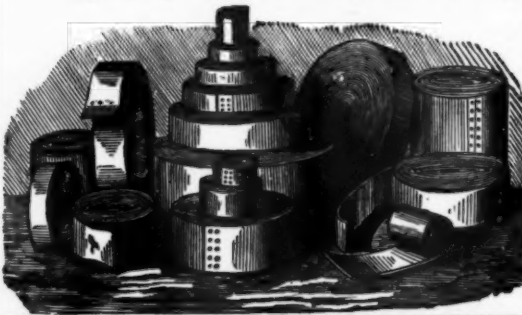
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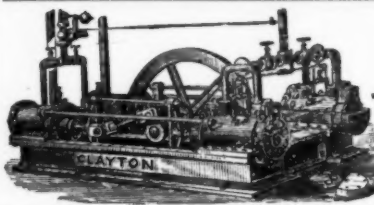
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